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### SUSTAINING ASSOCIATES

Two new Sustaining Associates have been added, effective as of January 1, 1958. We welcome them on behalf of all members of the Society.

**MILLER CHEMICAL AND FERTILIZER CORPORATION**  
2226 North Howard Street  
Baltimore 18, Maryland

**SWIFT AND COMPANY**  
Agricultural Chemical Division  
Union Stock Yards  
Chicago 9, Illinois

As of February 3, the following companies have again indicated their willingness to be Sustaining Associates of the Society. Their renewals for 1958 are appreciated by the Society and we commend them to our membership.

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Ft. Valley, Georgia  
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### AUTOGRAPHIA OO

**VOLUME 4 OF THE BULLETIN.** With this issue the BULLETIN begins its fourth year. This issue also marks certain changes. The three previous volumes were printed by the offset method by Typemasters Inc., 468 I Street, N.W., Washington D. C. They have done excellent work and we recommend them to interested persons. The number of libraries subscribing to the BULLETIN is increasing and since this seems to indicate that this sheet is becoming part of the permanent entomological literature, it was decided to change to letterpress printing. Herewith is the beginning. We hope our members like it.

**MINUTES MEETING.** The minutes of the business meetings at the fifth annual meeting at Memphis are printed in this issue. There were more than 300 members present at the final business session. The big item was the proposed amendments to the Constitution and By-Laws. The dry record of the meeting reflects little of the vital interest and difference of opinion brought out in the discussion. The net result of the action taken was that no amendments were approved and that the Society will continue to operate under the Constitution and By-Laws as adopted in 1953. Since there are no amendments there is nothing for the membership at large to vote upon. We have since obtained legal opinion confirming this analysis. The interest displayed by the members in attendance at the business meeting was, at least to the Executive Secretary, very gratifying. Interested members insure a continued healthy growth.

**COMMITTEE REPORTS.** The reports of the various standing and special committees, as accepted by the Governing Board at Memphis, are printed elsewhere in this issue. Much of the policy under which the Society grows comes out of the extensive work done by committees. We hope you find time to read all of these.

We would especially suggest that you read carefully the reports of the Finance Committee and the special Committee on Membership in the A.I.B.S. The membership at large will be asked to vote by mail on the question of increase in Society dues and on the matter of our becoming an affiliate in the American Institute of Biological Sciences. Background on these matters is fully covered in the reports mentioned.

(Continued on page 40)

# Entomological Research in our Changing World

## A MESSAGE FROM THE PRESIDENT

By R. L. METCALF

The sudden ascension of the Russian earth satellites has focused public opinion on science and scientists as never before. In all the clamor for the resurgence of American missile technology and the pleas for the vigorous prosecution of basic research in the physical sciences, there is some



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danger that biology may be largely overlooked not only from the viewpoint of governmental subsidies for research but more importantly in the intense competition for clear thinking young students, which is already taking place on the various educational fronts. Therefore entomology has a very sizeable stake in the developments of the next few years. We must be ever alert for opportunities to demonstrate that our profession, which concerns itself with at least two-thirds of all living organisms, and includes many of man's most vigorous competitors; must indeed rate high on the

list of necessities for the growth of the human society. This goal cannot be met by mere publicity alone. It is up to us to prove by substantial scientific achievement that the study of insects is both a fascinating and absorbing occupation capable of yielding great dividends in our better understanding of the living processes and the natural laws which control the growth and distribution of living things. The recent suggestion that insects may be sent aloft in an American space satellite proffers a timely opportunity in this direction, to challenge the notoriety of the late canine voyager into outer space and to probe on a much sounder statistical footing, the possibilities of interplanetary travel. Many other opportunities of this nature exist. Insects with their tremendous biotic potential, genetic adaptability, and minute food requirements are ideal experimental animals for the exploration of many baffling biological puzzles. Among these may be mentioned the factors responsible for the growth, differentiation, and regeneration of tissues, and the bearing of these upon malignancy and geriatrics. Insects because of their high degree of tolerance have a unique place in the study of cellular damage from ionizing radiation. Insects with their intense organoleptic response to taste and odor stimulation are most suitable subjects for the investigation of these obscure sensory phenomena. Today insect physiology and biochemistry are well enough understood to permit us to state that insofar as cellular processes are concerned there are no fundamental distinctions between the arthropod and the vertebrate. This should inevitably lead to insects occupying much the same position in cellular and metabolic research as the *Drosophila* fly has attained as the corner stone of experimental genetics. Entomologists must take the leadership in pioneering in these fields and it would indeed be remarkable if such researches did not uncover many valuable suggestions as to yet uncharted means of insect control.

I am sure it would be reassuring to our citizens, and perhaps even to our high government officials, to know that American entomological research is years ahead of that conducted on the other side of the iron curtain. That this statement is undisputable can be verified by anyone even slightly familiar with the contents of recent Russian entomological journals. Lest we suffer from complacency, however, let me remind you that the greatest challenge to successful progress in our own professional field comes from the insects themselves. Is there a single economic entomologist whose slumbers are not sometimes disturbed by the spectre of insect resistance to insecticides? This extraordinary phenomenon ranks as one of the important biological frontiers and is also inextricably involved in problems of human health, food production, and economic welfare. Two examples will serve to illustrate this point. It has been estimated that the cotton boll weevil has cost the American public something like \$6 billion during the 60 years of its invasion of our southern states. With the advent of the chlorinated hydrocarbon insecticides in 1945, control measures became more efficient and less expensive. A large segment of our agricultural chemical economy was built around the continuing demands for these insecticides, and the production of the older remedy calcium arsenate declined from 75,200,000 pounds in 1941 to 3,190,000 pounds in 1954. However, in 1955 it was demonstrated that the boll weevil had developed a high degree of resistance to toxaphene, heptachlor, dieldrin, and endrin, so that control failures were occurring. As a result, the cotton farmer lost in production and increased cost of treatment, and the agricultural chemical industry suffered an upheaval. Calcium arsenate production increased reaching 21,000,000 pounds in 1956, and at least 5 major agricultural chemical companies began the multi-million dollar research and plant construction necessary to produce a new insecticide, methyl parathion, which has shown exceptional activity against the boll weevil.

The second example relates to the decision of the World Health Organization to sponsor a \$500 million campaign aimed at the eradication of malaria on a world-wide basis. This disease has long been the greatest scourge of mankind and has been stated to cause as many as 200,000,000 clinical cases a year with perhaps 2,500,000 deaths. Its successful eradication has already been achieved in limited geographic areas largely through the efficiency of residual house spray operations with DDT, lindane, and dieldrin, in killing the infected female anopheline mosquitoes. However, the appearance of resistance to these insecticides in 8 species of anophelines has already occurred, causing grave anxiety as to the ultimate success of the entire eradication program.

The solution of the problems of insecticide resistance may well become one of the most important scientific discoveries of all time. However, from the rate of progress to date, it appears exceedingly unlikely that the problem will be solved without a concerted attack on the part of insect physiologists, biochemists, toxicologists, geneticists, and ecologists. The facilities and personnel currently involved are far too meagre to make rapid research progress, and above all we need the stimulus of new ideas and fresh minds. I am sure that it is the responsibility of our profession to seek the answers and I am confident that somehow and sometime they will be found. Let us see to it that entomology not only deserves but also receives public recognition for this achievement.

# Man in an Insect World

By H. M. ARMITAGE<sup>1</sup>

"If it was not for the ingenuity of man, this would be an insect world". This is not my own comment but was made several years ago by a well known entomologist addressing an audience such as this. On the surface the reasoning seems logical and has apparently never been seriously challenged. However, it does not stand up under close examination.



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Factually, neither of the two simple statements which the quoted comment contains, is true. The "if" has no place in the picture as, numerically speaking, this is very definitely an insect world, not only with respect to man, but with respect to all other forms of life on earth. Also, "man's ingenuity" has no bearing on the situation and, actually, is pitted against only the most outlying reaches of that world in his effort to maintain a relationship satisfactory to his own standard of living.

The comment suggests an old adage that "It is sometimes difficult to see the forest for the trees". Entomologists have become so wrapped up in their specialized fields of interest, that they seem to have completely forgotten, if they ever took time to notice, the over-all relationship between these two major life groups. It might, therefore, be worth while to step back and take a look at the "forest", so to speak.

In number of species, insects exceed man by a ratio of at least 500,000 to one. This seems to be the minimum figure quoted by taxonomists. Some maintain that the number of species so far catalogued is nearer 800,000—others a million. A few contend that when the returns are all in, the total will be somewhere between two million and ten million species. I have had neither the time nor the inclination to check the accuracy of any of these figures. For the purpose of this presentation I accept the lowest figure quoted, without reservation. This figure of 500,000 is unquestionably large enough to support the contention that this is definitely an insect world. In addition to this tremendous differential in number of species, insects have the further decided advantage over man, of short life cycles, high reproductive capacity, and the seeming ability to adapt themselves to the most adverse conditions conceivable.

If the Creator had given insects the ability to think and plan objectively in their own interests, and had they developed the same antagonism towards man that he has towards them, man would long ago have become nonexistent, with only his skeletal remains, in which insects have never indicated any interest, as evidence that he once inhabited the earth—if such evidence has any point. Oddly, man has more to fear from himself—a single species—than from the one-half million or ten million species of insects, which ever the case may be.

Fortunately, insects have no interest in man, as such, except the few species that are attracted to him as one source of food. In fact, probably not over 5000 of the 500,000 species, or only 1%, are of any measurable concern

to man, while not more than 1000 species, or 0.2% of the total, might be considered of serious concern to him, as major pests. The species making up this 0.2% are, generally speaking, subject to at least 90% natural mortality resulting from the attack of insect predators, parasitism, disease, food shortage, and the elements. Therefore, it would appear that man's ingenuity is directed against only one tenth of 0.2% of all existing insect species. However, man should never completely ignore the latent pest potentialities in the balance.

Using his ingenuity, man may continue to hold some pest species below the level of damaging populations, within relatively limited geographical areas. He may even eradicate a single species from a very limited area, in which an incipient infestation has become established. But, all in all, it is very questionable whether his total deadliest efforts will ever make even a perceptible dent in the world population of insects. In other words, I believe it must be admitted that insects are here to stay, and that man can best direct his efforts toward learning "how" to live with them. In fact, entomology might be more realistically defined as "the science of learning how to live with insects".

Having put man in his place, numerically, with respect to insects, let us examine his position from the standpoint of his own interests. Do not for a moment be deceived by this apparently near microscopic, statistical relationship, as revealed between the two groups. The importance, or seriousness of insects with respect to man's way of life—if not his actual survival—is not to be depreciated one iota. Part of this small number of species of concern to man can be credited with being associated, as vectors of human diseases, with close to one-half of the human deaths in the world. Each year, 250,000,000 people are still afflicted with mosquito borne malaria with a mortality rate of 10% or 2,500,000. However, some favorable progress in control is being made in this field. Insect action in this respect is not deliberate. In fact it is very questionable whether they are even aware of their ability to thus wipe out the human race.

The other part of this very small number of species of concern to man, is credited with destroying, or damaging, close to one-third of the world's agricultural production. Possibly this is no more than their fair share, having been responsible for its production through their part in pollination. However, man is naturally not inclined to recognize this implied partnership.

Man's reaction to this situation might lead the layman to believe that all entomologists are dedicated to eliminating insects from the world. Even if this was possible of accomplishment, nothing is further from his thought. He is well aware that he would have far more to lose, and too little to gain, by any such move. His interest lies wholly in controlling a relatively small number of species, to the extent, and only to the extent, that they interfere with his way of living.

In this respect, I believe it can be said with reasonable certainty that with a few major exceptions such as mosquitoes, or possibly grasshoppers, the problems presented to man by insects are all man made. The intent of my comment in this presentation is to question whether he is approaching the solution of these problems in the proper manner, and even suggest that in many instances his action may be further magnifying them by failing to observe and follow simple basic principles involved. To avoid any possible controversy with Russian scientists as to who was first, my comment is purposely presented from the standpoint of man's shortcomings, as I see them, rather than from that of his accomplishments. The latter speak for themselves.

In viewing these problems in some semblance of order, we might properly start with those concerned with pre-

<sup>1</sup> Presidential address, Fifth Annual Meeting of the Entomological Society of America, Memphis, Tennessee, December 2, 1957.



venting pest spread and follow through with those concerned with the various fields of control.

Any effective measures designed to prevent pest spread should presume the presence of geographic barriers to natural spread to the areas being protected. But all too often they are based solely on political lines. It is surprising how seldom the Continental Divide has been used as a logical natural barrier to insect spread, either east or west, when framing quarantines. Instead, state lines have normally been used, occasionally with some of the states involved lying on both sides of this Divide. In some instances, apparently as a matter of convenience, quarantine lines have been drawn practically on the basis of "meets and bounds" with complete disregard of surrounding or adjacent terrain. For example, an interested agency has recently drawn a quarantine line in open country within five miles of an existing fruit-fly infestation, against a species having a flight history of over 100 miles annually. Another fifty miles would have permitted the use of an effective mountainous, natural barrier, to such flight spread, though, admittedly, its use would have thrown considerable host fruit under origin treatment as a condition of movement. This instance leads to the further observation that the closer one gets to a problem, or becomes involved in it, the more charitable one becomes—in one's own interest.

In delimiting suspected infested areas for quarantine purposes, man places too much confidence in visual inspection. Any insect species has to reach a certain population density before its presence can be detected. In the meantime, jump spread has taken place that cannot be detected until it, in turn, has reached the same density. The use of geographical barriers to pest spread would, therefore, ordinarily come nearer including all existing infestation, than would any area defined by visual inspection.

Having established otherwise effective quarantine lines, man can be directly charged with circumventing the planned protection, through the inadvertent, accidental or careless movement of potential host carriers across established lines, or, more seriously, by permitting the actual entry of the pest species being guarded against. With one hand he sets up elaborate plant protective measures, aggressively enforced, designed to prevent the introduction of insect pest species into clean areas, by prohibiting the entry, or movement, of their host carriers, and with the other hand, certainly not his head, he nullifies that protection by providing in the same measures that the pest species, itself, may be allowed entry under permit for asserted scientific purposes.

The recent modification of the federal Plant Pest Act, extending the requirement of a permit to the entry of living nematodes or plant disease organisms, is an excellent piece of progressive legislation. The Act previously covered insects only. The requirement of permits gives needed control over all prospective entries of living material. However, to be fully effective the Act should specifically prohibit the issuance of a permit for the entry of any known or suspected pest species, under any conditions, which species is not known to occur in this country, or in the intended area of destination.

Contrary to this thought, those supporting the modification assured the Congressional committee before which it was heard that "qualified research workers would be allowed to obtain and use material necessary for their investigations under conditions which would prevent dissemination of plant pests" with no apparent reservation where pest species may be involved. Such a position is considered hazardous, unnecessary, and unsupported by any logical reasoning. There are no useable conditions conceivable that present 100% safeguards against escapes. The possibility of human or mechanical error, or of disruption by the elements, is inherent in every such situation. If such prohibition would prevent progress in needed scientific research, as maintained by some, permission for entry or movement of such species, under maximum safeguards, might be given on the basis of calculated risk. But such risk is absolutely unnecessary. The species can always be studied where it occurs, naturally, and usually to better advantage. The

inconvenience and increased cost of so doing would hardly be measurable in terms of loss resulting from escapes.

We have, in the Gypsy moth, a typical example of what can happen under such conditions. One hundred years after its escape from private research laboratory, it is currently responsible for a multi-million dollar control program in the north eastern United States, with the "necessity-of-use" of the means and materials used, now in the courts. The result of the pending court action could adversely affect all future insect control procedures, to a serious degree. It is true that this escape occurred long before the present day protective measures were in force, and that there seem to have been no other instances of similar escapes, in spite of official approval creating such opportunities. By the same token, all of us have carried insurance of one kind or another, without ever having occasion to collect any of its protective benefits. However, I doubt whether any of us would seriously consider giving up that protection.

In establishing a permit system for the entry of live insects, man may be further defeating the effort put into plant protective measures. The entomologist of one of the larger states east of the Mississippi River has stated in correspondence, quote "we have had some sad experiences as the result of issuing permits to (foreign university) students to bring in—insect material for study. While we do not—issue a permit without the approval of the head of the Entomology—department under whom the student is carrying on research work, we have found that frequently the pressure of other duties has not permitted as careful supervision as we would desire and that they fail to make reports to us as to the disposition of the material after the research study has been completed. One of the greatest weaknesses in the procedure is that there is no one at the ports (not entirely true) in a position to identify the specimens brought in for study to determine whether or not they are as labeled and we have our doubts as to whether the heads of some of the Departments who approve the insect for a permit are any more capable of their identification" unquote. The permits referred to are assumed to be either the general type issued to Universities by the federal authorities for the entry of non-economic species, or issued to the individual on approval of the state authorities. In view of the number of foreign students distributed to universities throughout the United States, if this situation holds true in many other states, effective plant protection measures would seem almost hopeless.

In the enforcement of his plant protective measures, man depends almost entirely on visual inspection of the potential host carrier—its weakest link—rather than on its treatment. Subjection to fumigation, as a condition of entry, or movement, using methyl bromide, or any other equally effective fumigant, even though not fully effective against all stages of all species of insect pests, would be far superior to inspection. Generally speaking, he conducts his inspections and imposes his protective measures at destination, after the opportunity of escapes has been possible, rather than at origin. Obviously, any required treatment measures should be applied at origin.

He recognizes the hazard of soil in association with plants, as a pest carrier, and prohibits its entry from foreign countries under such conditions, but ignores this hazard at home, except where associated with hosts of certain major quarantined insects originating in an infested area, such as the Japanese beetle or the white fringed beetle. Quarantine inspection of host plants at home is, therefore, restricted to the exposed parts of the plants, due to the difficulty of making any practical inspection of the accompanying soil. In this he completely ignores the medium most likely to carry pest species. Means are available, and practical and economical of application, if he would chose to close this loophole by requiring the origin sterilization of all soil accompanying plants.

He permits the entry of otherwise prohibited plant material under approved treatment applied at origin, with no restriction as to the initial degree of infestation, acceptable. He knows that research has shown that in the presence of high insect populations a minimum of six survivors in 100,000 may be assumed, regardless of the treatment

measure used, if at concentrations and exposures not lethal or seriously damaging to the host concerned. With this knowledge as a lever he could restrict acceptance of approved origin treatment to host material which failed to show infestation with the pest species concerned, on the basis of a reasonably representative inspection. Such findings would signify the presence of a population, if any, well within the effective limits of the measures used. This has been a real problem to states concerned with protecting themselves against introduction of the citrus whitefly. Shippers have taken advantage of these treatment provisions to legally move treated plants so heavily infested that they would have otherwise have been discarded, which in line with this reasoning would carry an appreciable number of undetectable survivors, thus nullifying the protective purpose of the treatment.

In his efforts to detect the presence of new pest species, or to delimit an area carrying a known established incipient infestation of such a species, he often uses attractive aromatic lures in specially designed traps. He knows that they do not trap all of the individuals that they attract. Their promiscuous use can, therefore, actually defeat their purpose by inviting spread, thus establishing new areas of infestation. This can be avoided only by assuring that each trap is well beyond the attractive range of the nearest neighboring trap.

When he does find a pest species newly introduced into a very favorable habitat without its natural enemies, under which conditions it can be expected to rapidly develop seriously damaging populations, he does not always exercise his ability to the fullest in the search for and introduction of such natural enemies. In spite of the aeroplane, the world is still fairly large when it comes to finding the native home of an introduced pest species, which, if it has any effective natural enemies, should be present, there, only in very low population. For a similar reason the population of its natural enemies should be at an even lower level. The problem of search is usually too large to be limited to the effort of only one or two entomological explorers, no matter how competent, if favorable results are to be expected within any reasonable time, for in covering the world they must arrange to be in the right place at the right time.

As an outstanding example of aggressiveness in this respect, I would like to cite a report of the U. S. Department of Agriculture which concerns the appearance of the Oriental fruit fly in the Hawaiian Islands, presenting such a problem. Recognizing this problem, federal, territorial, and industry officials immediately pooled their personnel and funds and placed eight competent entomological explorers in the field, in the form of four teams of two men each. In two years these eight men collected 4,219,749 fruit fly puparia in 21 countries, extending from Formosa to Madagascar, representing the heart of the fruit fly belt. These puparia were taken from 110 host fruit types and represented 64 species of fruit flies. From these there were reared 80 species of parasites of which, following clearance through rigid quarantine, 70 species were used in making 1434 field tests. Twelve species were recovered in the field of which three species have subsequently proved instrumental in producing an oscillating control ranging from 30% to 85% annually.

After more than fifty years a really complete search of the world for natural enemies of the pink bollworm of cotton is still to be made. "Shot-gun" search has failed to discover any species of parasite or predator that has been successfully introduced into this country under the minimum program followed. This comment is not intended to depreciate in any way, the fine work that has been done, but rather to call attention to its incompleteness when compared with the all-out effort expended in the Oriental fruit fly parasite search.

In order to fully meet his food and fiber needs, man necessarily plants tremendous contiguous areas to a single crop, inviting maximum infestation by species attracted to that host, and providing an environment making increase to epidemic numbers, almost a certainty. However, he does not appear ingenious enough to apply his control measures, co-operatively, to the entire area at one time, using the

modern machinery and materials available to him for that purpose. Instead, he follows what might be termed "checker-board" application by individual growers. As a result, he quickly becomes reinfested from adjacent, untreated plantings. This latter mode of operation adds up to repeated, short interval, chemical applications, throughout the growing season, much of which could have been avoided by using the other method.

In electing to apply chemical treatment as a means of insect pest control, he is aware that he assumes, with his first application, full responsibility for all future control of all species infesting that particular planting, as the chemical used can be expected to be equally, if not more, toxic to any parasites or predators that might be present, than to their host, the pest species. While he might be able, in some cases, to develop a specific insecticide effective only against a single insect species, and thus minimize this situation, the general trend, for understandable economic reasons, is toward an all-purpose, single application material, the use of which could be expected to near eliminate parasite-predator populations.

It is true that many may sometimes minimize natural enemy mortality by so timing the application of the insecticide that it is made when they are in their least vulnerable stage. But such a program would require the specialized knowledge of an entomologist in a field in which too few have yet been trained.

In approaching insect pest control through the use of chemicals, man has, until recently, been inclined to direct the measures used, against the above ground, visible stages of the pest species, almost completely ignoring the soil in which many spend the major, and often the more vulnerable, part of their life cycle. There has been a recent favorable trend in recognition of this situation resulting in the incorporation of insecticides in the soil, either as such or in combination with fertilizers, which is slowly being accepted. However, here again there is need for more knowledge as to the effect of such measures on soil bacteria and other organisms essential to maximum plant development, and the compatibility of the chemical used with those present in the soil, before such methods can be universally approved.

In selecting a control chemical man seems dedicated to using the most promising material, most recently developed, to the near exclusion of older materials of near equal value, even though the safe and effective use of the newer material may not yet have been given the "green-light" by the authorities. If found effective, he then proceeds to apply this material, year after year, to the exclusion of all others, until its failure results from resistance developed by the pest species against which it is directed. He knows that it normally requires an appreciable number of generations to build up maximum resistance, which resistance may sometimes be lost fairly rapidly, if the chemical is with-held. However, he seldom makes any use of this knowledge by selecting two or more types of material of near equal effectiveness, and using them alternately, or at least restricting the number of consecutive applications of any one specific material to that permitting development of no more than minimum resistance.

Manufacturers and research workers continue to report the effectiveness of their materials, or the results of their investigations, in terms of percent mortality, which is meaningless, except as a basis of comparison between materials, or between various formulations of the material used. The user is not interested in how many are dead, but in how many survived the treatment. A 99.9% mortality with respect to an insect species whose field population runs into multi-millions, is of no value to the grower if the 0.1% survival is in sufficient number to still represent a damaging population. To be of any real value, research workers should first determine for each major pest, the number of individuals for each unit of measurement, beyond which applied treatment becomes imperative. All control results should then be reported in terms of the number of survivors, and evaluated in relation to that pattern.

Having successfully harvested a crop, or part of a crop,

with the aid of effective insect pest control measures, more often than not, man allows the host debris to remain in the field until such time in the following season as he is ready to prepare the soil for a new crop. He knows that such debris provides an optimum environment in protecting pest survivors, thus allowing bridging of the gap from one season to the next. By shredding, deep plowing, and in some instances, winter flooding, he can not only recover the full organic value of this debris, but destroy all of the insect life which it harbors, or protects at the soil level. Unfortunately this insect mortality would also extend to all beneficial forms, as well, which might be present. But as previously stated, once man embarks on control he assumes full responsibility, with no half-way measures permissible.

Having practised clean cultivation immediately following harvest, or during the winter months, he usually nullifies the full value of field sanitation by failing to recognize the pest survival permitted in immediately adjacent uncultivated areas. A pre-planting season application of the proper insecticide to these areas, within predetermined practical limits, could materially aid in minimizing later crop infestation. Such action with respect to small individual plantings of cotton has, on occasion, protected against infestation of the subsequent crop with cotton boll weevil, almost to the exclusion of required treatment during the growing season.

Man thinks nothing of planting the same field and row crops, in the same area, year after year, where alternating with some other crop not susceptible to attack by the same insect pest species, would materially aid in holding the incidence of their occurrence at non-injurious levels. The recently instituted Soil-Bank program may, unintentionally, have just such a beneficial effect. "Acreage reserves" in which selected areas are taken out of the production of certain staple crops, on a year to year basis, would at least temporarily reduce the area of those crops, and to that extent reduce the field populations of their established pests. Substituted crops, not susceptible to attack by these same pests, would be slow in developing damaging populations of others, in a single year. "Conservation reserves", in which selected areas are taken entirely out of crop production for from 3 to 10 years, would similarly reduce the volume of attractive crop hosts, with a comparable reduction in insect pest populations for the period these reserves are in effect. However, these measures cannot be expected to have any very startling effect, other than possibly locally, as the "acreage reserves", as currently allocated, represent only slightly over 1%, and the "conservation reserves" only 0.3%, of the total national area in land use.

There is an axiom in physics to the effect that "In every action there is an equal and opposite reaction" which can well be applied in the field of insect control. At the risk of contradicting myself when previously recommending such an approach, I must admit that there is a distinct hazard in the application of highly toxic insecticides to a large contiguous area, in the attempted control or eradication of a single insect species, on a single host plant common to that area. In so doing, there may be an "equal and opposite" biological reaction resulting from the near elimination of natural enemies that may have held potential pest species, at levels where their presence may not even have been suspected. In the wholesale application of DDT to thousands of acres of forests in the control of such species as the Gypsy moth or the spruce budworm, there is far more reason for concern over the possibility of such a result, than there is in the effect such materials and methods may have on wild or domestic animal life that may be present.

All too often, man is denied the opportunity of conducting fundamental research with respect to major insect pests without being seriously inhibited by the demand for immediate measures of relief. In a recent top-level discussion concerning the alarming increase in resistance of the cotton boll weevil to chlorinated hydrocarbons it came out that before any constructive investigations could be undertaken, it would first be necessary, after fifty years, to go back and determine certain important factors in the life history of the weevil. Any prior opportunity to develop

this information had always been side-tracked to meet the immediate demand for measures of control. Such basic research should always be conducted concurrently with, but entirely separate from, all other investigations, and fully protected against any disturbance from outside pressures.

Man seems unwilling to pay the cost of employing competent entomologists to assist him in analyzing and meeting his insect problems. This is partly understandable in view of the wide array of experts, available to him at no cost, through federal, state and county governments, the Universities, the Extension Service, and even Industry, itself. This free assistance, however, can only be advisory, and very seldom supervisory. In the latter respect it is not always available when most needed. Some progress is being made in the right direction. Growers of a single crop are beginning to pool their interests and employ a full-time competent entomologist. He is expected to keep them continuously advised with respect to all phases of their pest problems, the best manner of meeting them, and provide actual supervision of the control measures recommended. This is not only paying dividends to the grower, but is providing a needed source of employment for graduate entomologists.

I appreciate that little of what I have said is new. Much of it is elemental. It may contain some contradictions and is wide open to exceptions. If I have appeared unduly critical with respect to cited action, it is intended to be constructive. Most, if not all that I have said, is known to those concerned. Unfortunately, however, as I have mentioned previously, we seem so wrapped up in our individual problems, that we are ignoring the important over-all picture.

Man's place in an insect world should be to do as little as possible that would seriously disturb the inherent biological balance in that world. When he feels that he must employ measures in his own interests, that would disturb that balance, he should proceed intelligently, and only to the extent actually necessary. He should keep in mind that he is not destined to "eliminate" insects from the earth, but rather to "learn how to live" with them, in maintaining his elected standard of living.

Not long ago I listened to an exceptionally fine television program presented by the Moody Bible Institute, entitled "Science in Action". At the close of this particular program the speaker moved into a close-up and looking every viewer straight in the eye said "I can see that you are thinking. Don't be ashamed. That is perfectly normal in every intelligent human—and who knows, may lead to much constructive action". I would like to close on that note.

#### PUBLICATION ANNOUNCEMENT

The *Proceedings of the Tenth International Congress of Entomology*, held in Montreal, Canada, in August, 1956, are expected to be ready for distribution in late 1958. The price is \$75.00 postpaid for the set of four volumes. Since a limited number will be printed only orders received before May 1, 1958, can be guaranteed.

The *Proceedings* will contain nearly 700 scientific contributions, many accompanied by illustrations. The four volumes, comprising over 4200 pages, will constitute an indispensable work of reference for many years since most of the material is not being published elsewhere.

For further information write to the address below:

Tenth International Congress of Entomology  
Science Service Building  
Ottawa, Canada.

#### SWEADNER ENTOMOLOGICAL SOCIETY

This active Society meets the fourth Monday evening of each month except June, July and August, at the Carnegie Museum, Pittsburgh, Pennsylvania. The 1958 officers are; President Dr. Stanley Crawford; Vice-President Mr. Arnold Mallis; Secretary-Treasurer Harry Katz.



# MINUTES OF THE OPENING SESSION AND BUSINESS MEETINGS

## ENTOMOLOGICAL SOCIETY OF AMERICA

DECEMBER 2-4, 1957

### OPENING SESSION

December 2, 1957

The meeting was called to order at 9:30 A.M. by President H. M. Armitage in the Continental Ballroom of the Peabody Hotel. The invocation was given by the Reverend W. Chester Keller, Pastor of the Woodland Presbyterian Church in Memphis. A welcoming address by the Honorable Edmund Orgill, Mayor of Memphis was well received. Preliminary announcements were made by the Executive Secretary, R. H. Nelson, the Chairman of the *Local Arrangements Committee*, H. G. Johnston, the Chairman of the *Exhibits Committee*, Harrold B. Jones, and the Chairman of the *Program Committee*, E. N. Woodbury.

President-Elect R. L. Metcalf took the chair and introduced President Armitage. President Armitage then delivered the presidential address, *Man in an Insect World*, which is printed elsewhere in this issue of the *BULLETIN*. Dr. Metcalf complimented President Armitage on his address. A 10 minute recess was declared.

### PRELIMINARY BUSINESS MEETING

December 2, 1957

The preliminary business meeting was called to order by President Armitage who then gave the President's report to the Society.

1. **PRESIDENT'S REPORT.**—I am departing from the usual custom of previous Presidents in reporting to the members on the activities and accomplishments of the Society during the past year. I will leave that to Secretary Nelson. I prefer to look ahead. When I accepted the position I assumed it was the duty of the Secretary to keep the Society on an even keel, and that, as President it was my duty to "stir" up new business in the interests of the Society. I can report that Bob Nelson has turned in an excellent performance, in a stormy sea. If he had the opportunity, and I freely give him permission, he would tell you that I have held up my end. It remains to be seen whether the surface returns to its former placidity, or the sincere effort results in action commensurate with the needs of a growing Society.

Membership increased 9% during the past year—17% during the past two years. At 4089 it exceeds the total of the two Societies at the time of amalgamation by some 500 members. We have more than regained the membership lost at that time, representing those who felt certain the new Society would not fairly represent all of the varied interests of its members. That fear has been allayed by demonstration during the past five years. Let us hope that nothing in the proposed Constitutional amendments, such as the establishment of Divisions, or in the effort to establish professional standards in entomology, does anything to disturb that situation.

It is difficult for a professional society to put on a dignified front when its headquarters is donated by another scientific organization. We should plan for the future by establishing a "Headquarters Fund" in which we place not less than \$5,000 each year against eventual purchase of permanent quarters, which can in the meantime be drawn on for payment of rent, should we be evicted from our present offices or these crowded quarters prove inadequate for an expanding administrative program.

I believe it would be admitted by anyone that our publications are the life of our Society. It, as stated by President Ross in 1954, our members are our best customers, I am afraid that at the moment we are in a losing business. Roughly 7 members out of 8 do subscribe to the *JOURNAL*;

1 out of 3 take the *ANNALS*; only 1 out of 8 purchase the *INDEX to LITERATURE of AMERICAN ECONOMIC ENTOMOLOGY*; 1 out of 5 have a personal copy of *ENTOMA*; 1 out of 5 purchase a copy of the *ANNUAL REVIEW of ENTOMOLOGY* through the Society. The one bright spot in the publication picture is the *BULLETIN*. Every member has a copy of that valuable publication. I am led to believe that in many instances there are more copies of Society publications in storage, where they benefit no one, than there are on member's shelves where they would serve their intended purpose.

Both the *JOURNAL* and the *ANNALS* are back on regular schedule, thanks to Bob Nelson, and to the cooperation of the Editors and the printers. They are unquestionably the equal of any other publication in their scientific field today. However, their increase in content makes it impractical, and decidedly unfair, to continue their publication using the voluntary uncompensated help of a few dedicated individuals. We can at least express our appreciation to Dr. James, who is retiring after ten years of such service as Editor of the *ANNALS*, and to Dr. Poos who continues to edit the *JOURNAL* at home, nights, while putting in at least three full days a week in the Secretary's office as Editorial Assistant. We have reached the point where we should employ a full-time, paid, Managing Editor and staff, the increased cost of which is estimated at about \$12,000.

For several years we have been flirting with the idea of establishing a closer relation with the American Institute of Biological Sciences, but have never taken the necessary steps. We are the only large biological organization not a member of that group. Membership would give us representation on its Governing Board and a hand in planning over-all biological policies. As will be reported to you later, you will be given an opportunity next year, to express a definite opinion on this issue, one way or another. I hope it will be favorable, even though it may add another dollar to your dues.

In view of the expressed needs involving new expenditures, which in turn represents a need for additional revenue, a material increase in member dues can hardly be avoided. I hope you will be given the opportunity to express on a mail ballot, whether you approve a needed \$3.00 increase. The decision will be up to you.

It would be mutually beneficial in the annual meeting of the Society could be separated by as near six months as possible from those of any of the Branches. Otherwise, Branch meetings tend to detract in attendance and number of submitted papers, from that of the Society, or in duplication or loss to the Society of subject matter already, or to be, presented at Branch meetings. This year we had the Eastern Branch meeting just one week ahead of the Memphis meeting, while the Cotton States Branch is meeting with us. Not that it is not most welcome but that it is not a healthy situation for either organization. As four of the five Branches now meet in late fall or early spring, such an arrangement would mean summer meetings for the Society—preferably on a college campus. This might be beneficial to the Society in several ways, in presenting a better biological environment without the distractions of a large city, in presenting an opportunity to fit attendance in with vacation plans, including the entire family, and more important, at a cost well within the means of the average entomologist's pocket-book.

We could do a lot to improve Society-Branch relations. In 1954 the Southwestern Branch presented a resolution suggesting that the Branches might profit by "swapping" ideas. It has also been suggested that it might be worth while each year, if each Branch invited the Chairman of another Branch to address their group. This year, when



both Bob Nelson and I visited each of the Branches at the time of their annual meeting, at a cost of around \$1600.00 to the Society, it was thought that the expenditure would be justified in presenting an opportunity to sit down with them around the table and discuss mutual problems. I can only report that we were received and treated as honored guests and met some nice people. At the Pacific Branch, where I so recommended as a member, they did invite Bob and me to sit in with their Executive Committee.

I sincerely believe that Society-Branch relations could be materially improved if the administrative officer of the Branch, the Chairman, rather than an elected individual, was made the Branch representative to the Governing Board. I have tried to bring him into the picture this year by furnishing him, through Bob Nelson, with a copy of each of the interim numbered board Letters. I hope this procedure will be continued if they do desire. Relations could be improved if the Society paid a little closer attention to the requests of Branches, such as that of the Pacific Branch for certain financial assistance. The Society has assumed the sole right in collecting dues from its members thus throwing the Branches back on their own resources reduced to financing their entire Branch activities through registration fees assessed against those already under heavy travel expense in attending the meeting. This is a problem peculiar to the large western area. AAAS recognizes the problem in their own organization and allows each of its three western branches \$1.00 for each of their members, which is what the Pacific Branch was requesting, with the proviso that it be collected by the Society from their western members. It was denied by the Board on the grounds that three of the Branches did not need or want such assistance.

One of these days we are going to have to look the facts in the face and admit that we are a national and not an international Society as implied in the title. I have tried, unsuccessfully, during the past year, to promote Branches in other North American countries. I find that our neighbors on the north consider us as the Entomological Society of the United States. They have their own fine organization and are apparently planning on welding all of their local societies into a larger biological federation. As an international organization we hardly have the right to recommend to the U. S. Department of Agriculture, or to Congress, how they might best allocate and use federal funds in entomological research and control. As a national organization we would have a right to do so. It hardly seems proper, as now permitted, that the resident of another country be permitted to hold office in the Society, where, as is the case, that opportunity is not reciprocal. Entomologists in either country might well be permitted membership in either or both organizations but not hold office. We could profitably arrange that the two societies meet concurrently whenever convenient, as is planned at Detroit in 1959.

On the credit side of the ledger, I would like to point out that during the year, you, as members, have not been idle. The records show that 191 members representing a 4.3% of the membership, were active in the interests of the Society. These included the three officers, 11 other members of the Governing Board, 25 members on 5 Editorial Boards, 56 members on 9 Standing committees, 75 members on 16 Special committees, 5 representatives to 4 other organizations, and 16 members to special events. Yes, I included Bob Nelson. He is a member, and I believe put in a little time, too. I am now going to ask him to report to you on the real state of the Society, as Secretary.

2. REPORT OF THE EXECUTIVE SECRETARY.—The following summarization of activities in the Washington office is presented for your information.

**Finances.** The complete Auditor's Report will be published in the March 1958 BULLETIN. The overall results for the past year may be of interest.

General Fund—gain above expenditures	\$4,756.17
Permanent Fund—increase	1,020.77
Thomas Say Foundation—increase	988.43

#### Membership breakdown.

MEMBERSHIP CLASS	SEPTEMBER 1956	SEPTEMBER 1957
Active	3341	3627
Emeritus	49	58
Honorary	11	9
Life	68	68
Student	278	327
Totals	3747	4089
NET GAIN		342

#### Annals of the Entomological Society of America.

The following counts are as of the September issue.

YEAR	COPIES PRINTED	COPIES MAILED
1956	1,900	1,627
1957	2,100	1,842

#### Journal of Economic Entomology.

The counts are as of the October issue.

YEAR	COPIES PRINTED	COPIES MAILED
1956	5,400	4,927
1957	5,700	5,271

#### Index to the Literature of American Economic Entomology.

Order blanks for Index XV were sent to all members and the sales have been encouraging. Index XVI which will cover the literature for 1956 and 1957 will be issued early in 1959. There will be no issue in 1958.

#### Annual Review of Entomology.

Order blanks were furnished to all members. The number fell off in 1957. The importance of the book to working entomologists should be appreciated and members are urged to keep a complete set by purchasing the annual numbers. Members should be sure to send in their orders before December 1 each year.

#### Election results.

Dr. P. W. Oman was elected president-elect for 1958 to become president in 1959. (Dr. Oman was introduced). Dr. E. Gorton Linsley (Section A) and Dr. Morris Rockstein (Section B) were elected to the Governing Board. (These gentlemen were introduced). Professor H. S. Smith and Dr. S. W. Frost were elected to Honorary Membership.

3. R. L. METCALF, Chairman, reported for the special Publications Policies and Procedures Committee. (See the report elsewhere in this issue.)

4. ROBERT GLEN, Chairman, reported for the special Committee on Society Membership in the A.I.B.S. (The report is published in this issue of the BULLETIN.) Dr. Glen introduced Hiden T. Cox, Executive Director of A.I.B.S. who pointed out the many advantages that would accrue to the Society and to all biological science by our becoming affiliated with the American Institute of Biological Sciences.

5. F. L. CAMPBELL, Chairman, reported for the Finance Committee. (See under Standing Committee Reports.)

6. MICROCARD PUBLICATION. Dr. Campbell introduced Gerald Sophar of the Microcard Corporation who discussed the various methods of microprinting of scientific papers. (See the reports of the Finance Committee and of the Editorial Board, Journal of Economic Entomology.)

7. RECESS. The meeting recessed at 12 noon to reconvene at 3:15 P.M. on December 4.

#### FINAL BUSINESS MEETING

December 4, 1957

The meeting was called to order at 3:15 P.M. by President Armitage. There were over 300 members present.

1. INTERIM ACTIONS OF THE GOVERNING BOARD. President Armitage presented the following report.

During 1957, as has been past practice, numbered Board Letters were used, in addition to other purposes, to invite member comment and action on matters of immediate concern. The content of three of these letters merits reporting here:

The majority of the Board approved publication in full, in the BULLETIN (March 1957, pp. 10, Resolution No. 5) of the controversial resolution passed at the annual meeting in New York City, in December, 1956, declaring "responsibility of agricultural nematode study as properly a function of entomology and/or zoology," which had neither the support or knowledge of nematologists.

The Governing Board approved the nomination of Dr. Harry S. Smith and Dr. S. W. Frost, for honorary membership in the Society. This action was later presented to the membership for mail ballot, and was fully endorsed. The holding of this honor is limited by the Constitution to 15 members at any one time, with election restricted to two in any one year. Secretary Nelson advises that the present total in this classification is now 11 leaving 4 open for future consideration. A complete list of the current members was carried on page 5 of the June 1957 BULLETIN.

After considerable correspondence with various members of the Society that it take the stand before Congressional committees that all research with respect to pest mosquitoes be centered in the U. S. Department of Agriculture, the Board, to which their argument was presented, finally approved a resolution that seemed satisfactory to all. This resolution (1) favored the enactment of legislation currently being presented in several quite similar House and Senate bills, (2) recommended that enabling legislation authorize an equitable distribution of funds between the Departments of Agriculture and Health, Education and Welfare, and other federal agencies, in matters pertaining to pest mosquito research, and (3) recommended that the Secretaries of Agriculture and Health, Education and Welfare, and any other federal agencies concerned, explore the possibility of establishing a formal inter-departmental committee, to allocate responsibility in mosquito research, where the greatest interest lay, and facilities and competent personnel were most readily available.

Copies of the resolution were forwarded by Secretary Nelson to the authors of the respective bills, the Chairmen of the House and Senate Committees on Agriculture, and to the Secretaries of Agriculture and Health, Education and Welfare. Most favorable replies were received from nearly all receiving copies. There was no adverse comment received.

It subsequently developed that a formal Inter-Departmental Committee on Pest Control had this problem for attention, and also that the Departments of Agriculture, and Health, Education and Welfare, met informally at irregular intervals for this same purpose.

Just recently the Society received a copy of the minutes of the quarterly meeting of October 25 of the Inter-Departmental Committee on Pest Control which carries a copy of the resolution and a comment to the effect that "the Committee has a great interest in the promotion of research and control work in mosquitoes, including an interest in permanent and temporary control measures, and the conservation of fish and other wild life, and water resources." The report was transmitted by Dr. W. D. Reed, Chairman of the Committee, Dr. Kenneth L. Knight is Vice-Chairman, and Dr. H. L. Haller, a committee member. All of these gentlemen are very active members in the Society so its interests should be well safeguarded.

In this action the Society adopted what is believed to be a satisfactory, middle-of-the-road, policy in avoiding openly supporting one large segment of Society membership—agriculture—against another large segment—medical and veterinary.

2. GOVERNING BOARD ACTIONS AT MEMPHIS. The Executive Secretary announced the following actions.

a. The Board selected the Chalfonte-Haddon Hall in Atlantic City, New Jersey for the November 28-December 1, 1960 meeting of the Society. By way of information it was noted that the 1958 meeting will be held at the Hotel Utah, Salt Lake City, Utah, December 1-4, and the 1959 meeting at the Sheraton-Cadillac Hotel in Detroit, Michigan, November 30-December 3.

b. Registration at the Memphis meeting was announced as 717, the largest to date.

c. The estimated receipts and disbursements for the Fiscal Year 1958 of \$112,000.00 were accepted for budgetary purposes.

d. The list of 8 applicants for Emeritus membership approved by the Board was read. These were Alfred B. Baird, B. B. Fulton, T. F. McGehee, D. E. Minnich, W. A. Price, H. L. Parten, C. J. Sorenson and M. A. Yothers. The list of 367 applicants for membership and reinstatement was presented and left at the rostrum for examination by the members present. Mr. Nelson moved the acceptance of the various applicants. H. H. Ross seconded. Carried.

e. The Executive Secretary commented upon the various reports of the Standing Committees, Editorial Boards, Special Committees and Representatives to other bodies and meetings. He stated that the full reports as accepted by the Governing Board would appear in the BULLETIN. The reports should be read for full details. The principal matters were as follows.

A special *Exhibits Committee* will be a continuing policy of the Society.

A special *Committee on Publicity* will be continued. R. L. Hussey was appointed Editor of the ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA.

A new, irregularly appearing publication, tentatively entitled MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY, is to be established contingent upon available funds. This is for papers too long for our regular periodicals.

The non-member subscription price for the ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA and the JOURNAL OF ECONOMIC ENTOMOLOGY is to be increased from \$12.00 to \$15.00 each per year effective January 1, 1959. If both are subscribed to under one combined order a special price of \$27.00 per year is to be applied.

The entire membership will vote by mail ballot upon the following recommendations of the Governing Board. 1. Whether or not the membership dues should be increased from \$10.00 to \$13.00 per year. This will include either the ANNALS or the JOURNAL plus the BULLETIN. Those taking both the ANNALS and the JOURNAL would pay \$19.00 per year. 2. Whether or not the Entomological Society of America should affiliate with the American Institute of Biological Sciences.

Members in Branch areas will be asked to vote by mail ballot on whether or not they favor a \$1.00 increase in dues to be returned to the Branches to help finance Branch activities. The Cotton States Branch requested this by resolution. The Pacific Branch had previously requested such action.

An annual Memorial Lecture procedure was instituted and is to start at the Salt Lake City meeting. A committee is studying the details.

f. The Executive Secretary expressed his thanks to the Governing Board for cheerfully given help and advice whenever requested; to all members who have made suggestions for the betterment of the Society and to his Washington office staff for splendid service. Mrs. Louise B. Stone, Chief Secretary in the Washington office was introduced to the meeting in recognition of her devotion to the Society.

J. N. Rooney moved the approval of the Executive Secretary's Report. Seconded by R. E. Campbell. Carried.

3. The President read the Governing Board nominations for vacancies on the various Standing Committees. In each case he called for nominations from the floor. None were made. The nominations and the meeting actions were as follows.

*Committee on Insect Surveys.* J. N. Rooney and R. L. Furniss. P. G. Piquett moved that these men be elected. Seconded Walter Abramitis. Carried.

*Program Committee.* Ed H. Smith. Neely Turner moved that Dr. Smith be elected. L. G. Davis seconded. Carried. *Committee on Insecticide Terminology.* S. A. Hall and B. N. Smallman. G. T. York moved that these men be elected. D. W. Hamilton seconded. Carried.

*Committee on Insecticide Reference Standards.* L. W. Daw-

sey. J. W. Apple moved that Dr. Dawsey be elected. L. G. Davis seconded. Carried.

*Committee on Common Names of Insects.* L. O. Warren, D. L. Kuitert, and J. L. Lafoon. R. L. Hussey moved that these men be elected. Roscoe Hill seconded. Carried.

*Committee on Membership.* H. O. Lund and Roy W. Rings. F. C. Bishopp moved that these men be elected. H. M. Harris seconded. Carried.

*Committee on Entomological Nomenclature.* D. E. Hardy, R. N. Bohart and M. H. Hatch. L. A. Carruth moved that these men be elected. Kelley O'Neal seconded. Carried.

*Committee on Finance.* Sloan E. Jones, R. L. Metcalf moved that Dr. Jones be elected. Lloyd Stitt seconded. Carried.

*Committee on Professional Training, Status and Standards.* John T. Creighton and S. B. Freeborn. M. P. Jones moved that these men be elected. Harrold Jones seconded. Carried.

4. The President read the names of the Chairman designated for the various Standing Committees by the Governing Board. These were as follows:

*Committee on Insect Surveys.* W. E. McCauley

*Program Committee.* L. D. Anderson

*Committee on Insecticide Terminology.* C. N. Smith

*Committee on Insecticide Reference Standards.* Frank W. Fisk

*Committee on Common Names of Insects.* H. H. Schwardt

*Committee on Membership.* D. L. Collins

*Committee on Entomological Nomenclature.* R. L. Usinger

*Committee on Finance.* J. A. Apple

*Committee on Professional Training, Status and Standards.* K. L. Knight

5. Report of the Committee on Resolutions.

In the absence of Chairman M. D. Farrar the report was read by Neely Turner, committee member.

*Resolution 1. Whereas*, the Society has lost a number of members by death since the last annual meeting,

*Be it resolved*, that this Society, through its Executive Secretary, extend sympathy to the families of the following:

D. F. Barnes  
R. H. Beamer  
(Emeritus)  
Adam Boving  
(Honorary)  
A. W. Burr  
C. B. Cheatham  
Norman S. Easton  
(Charter)  
Lloyd W. Ford  
Edgar C. Harrison, Jr.  
Ina L. Hawes  
Robert D. Kennedy

Robert Lambert  
John C. Martin  
James G. Needham  
(Honorary)  
Walter C. Noon  
J. G. Sanders  
(Emeritus)  
John Schaffner  
George Schweis  
H. S. Smith  
(Honorary)  
Al Skow  
M. D. Tanner

*Resolution 2. Whereas* the Executive Secretary of the Entomological Society of America Mr. R. H. Nelson, has carried on the business activities of this Society in a most efficient manner.

*Be it resolved* that the Society express its thanks to Mr. Nelson and to the members of his office staff for their service to the Society.

*Resolution 3. Whereas*, Dr. E. N. Woodbury, Dr. L. D. Anderson and Dr. P. W. Oman have done a most excellent job in the development of the program for this meeting, and for many details involved in arranging for the success of this meeting

*Be it resolved* that the Society express its appreciation to the members of the Program Committee for their success.

*Resolution 4. Whereas* the Committee on Local Arrangements under the chairmanship of H. G. Johnston have done a most excellent job in arranging for the meeting and providing the many services for its success.

*Be it resolved* that the Executive Secretary express the Society's appreciation to Dr. Johnston and to each of the members of this committee.

*Resolution 5. Whereas* the wives of the Local Arrangement Committee have provided appropriate entertainment for the wives of the entomologists attending this conference

*Be it resolved* that the Executive Secretary prepare a letter of appreciation to the members of this committee for their generous services.

*Resolution 6. Whereas* Harrold B. Jones and his Exhibits Committee have interested commercial companies and public agencies in bringing exhibit material to this conference, and for their most excellent arrangements for the display of these exhibits

*Be it resolved* that the Executive Secretary prepare a letter of appreciation to each of the members of this committee for their service.

*Resolution 7. Whereas*, the Committee on Public Information under the chairmanship of Dr. George C. Decker has done a most excellent job of providing the press, radio and TV with the most important news of this conference

*Be it resolved* that the Executive Secretary express the Society's appreciation to the members of this committee for their services.

*Resolution 8. Whereas*, the Management of Hotel Peabody has cooperated to the best of their ability in order to provide for this conference

*Be it resolved* that the Executive Secretary prepare a letter of appreciation to the Manager of Hotel Peabody.

Respectfully submitted,

C. E. MICKEL

NEELY TURNER

P. O. RITCHER

A. H. YEOMANS

M. D. FARRAR, Chairman

Neely Turner moved the adoption of these resolutions. H. H. Ross seconded. Carried.

6. Report of Committee on Constitutional Amendments.

J. T. Creighton read the report as follows:

The Committee was appointed by President H. M. Armitage and charged with the responsibility of reviewing the proposed amendments to the constitution as published in the March issue of the BULLETIN OF THE ENTOMOLOGICAL SOCIETY OF AMERICA.

The committee desires to commend the members of the committee which formulated a series of proposed amendments, and the Board of Governors for the conscientious work that was performed over an extended period of time in order to formulate a series of proposed amendments.

This committee has conscientiously studied them and sought the council of the membership in an endeavor to constructively review the document before submission to the members for vote by mail ballot.

It is the unanimous opinion of this committee that the amendments proposed by the previous committee should be used as the basic structure of the constitution and submitted to the membership for adoption or rejection by mail ballot. The committee recommends the aforementioned procedure contingent upon the following provisions:—

I. The committee recommends that when the proposed amendments are presented to the entire membership for vote by mail ballot that they be permitted to vote on the articles separately.

II. DIVISIONS AND ELECTION OF OFFICERS.—

The committee has a sympathetic understanding of the great concern of a large segment of our membership pertaining to proper representation in the administration of the affairs of the Society. The committee also is aware of the great concern of another segment of the membership concerning the constitutional establishment of barriers along professional lines that would prevent a realization of complete professional integration within the Society. The committee also recognizes the need for a more equitable distribution along geographical lines of participation in the administration of the officers of the Society.

Therefore, the committee recommends that consideration by the membership of the creation of Divisions, the composition of the Board, and the methods of electing officers be withheld from the proposed document for a maximum period of one year and that the Executive Secretary be instructed to make pertinent changes in other articles affected by this procedure. The committee recommends that the Society immediately launch an



exploratory effort to determine whether suitable amendments can be formulated that would be conducive to complete integration, while providing equitable professional and geographic representation in the administrative affairs of the Society.

The Society would continue to operate during the proposed interim period under the provisions outlined in the present Constitution in the fields of Board representation and election of officers. If more suitable methods have not been devised by the end of the one year period, it would be mandatory for the President and Executive Secretary to submit the proposed amendments as published in the March 1957 issue of the BULLETIN to the entire membership for rejection or adoption.

III. The committee recommends that the executive committee be authorized to make refinements in the remainder of the proposed amendments and that due consideration be given the suggestion of members. The committee will provide the executive committee with results of its deliberations pertaining to the several articles.

IV. The committee recommends that the Executive Secretary be instructed to obtain the services of a language specialist to review the final draft of the proposed amendments in order that they may be grammatically correct when published.

V. The committee recommends that the Executive Secretary be instructed to obtain the services of a legal specialist to consider the Constitution and By-Laws in conjunction with the articles of incorporation in order that they may be a legal and effective document of the Society.

VI. In order that the entire membership may be properly informed concerning the opinions of this constitutional committee it is recommended that this report be provided each member along with the proposed amendments and the mail ballot.

It is the fervent hope of this committee that the revised Constitution and By-Laws when accepted by the membership will be strong and conducive to the vigorous, democratic advancement of the Entomological Society of America.

Respectfully submitted,

DANIEL LUDWIG

WILLIAM E. STONE

JOHN T. CREIGHTON, *Chairman*

Dr. Creighton moved that this be adopted for the record. Neely Turner seconded. Carried. M. W. Barnes voted No. Col. R. W. Bunn made the following motion:

*Mr. President: Whereas* the proposed amendment of Article VI of the Constitution provides for dividing the membership of this Society into two Divisions—Basic and Applied, and

*Whereas* this Society was formed a few short years ago by the amalgamation of two parent societies oriented along those lines in an effort to form a single strong national society and to narrow the gap between these areas of interest—a gap that should be still further narrowed in order to promote the growth and advancement of our Society,

And *whereas* the proposed amendment of Article VI and pertinent sections of the By-Laws would provide for the election of representatives to the Governing Board by these two Divisions and by Branches rather than by Branches and Sections as is now the case, and *whereas*

Much of the business of the Society must of necessity be handled by our Governing Board, and if their actions are to reflect the desires of the membership it becomes essential that those persons elected to the Board are truly representative of the membership,

And *whereas* the present system of electing representatives from the regional Branches and from Sections representing areas of interest insures representative membership on the Governing Board and appears to be superior to the proposed change,

Therefore, I move that Articles VI and VIII of the proposed amendments of the Constitution, and those sections of the proposed amendments of the By-Laws pertaining thereto, be deleted from the amendments submitted to the membership for approval by mail ballot.

J. J. Pratt seconded.

The President introduced his board of experts to rule on the germaneness of motions made from the floor. (G. C. Decker, B. A. Porter and Paul A. Oman)

They ruled that Col. Bunn's motion was not germane to the intent and purpose of the proposed amendment. In effect this was a ruling from the Chair.

Wm. Rogoff moved that the question of germaneness be submitted to a vote of the meeting. K. D. Quarterman seconded. The members voted that Col. Bunn's motion was germane. Voice vote. Chair ruled it carried.

Dr. Creighton withdrew his motion that provision No. 2 of his report be accepted.

Daniel Ludwig moved that the *Executive Committee* be authorized to make refinements in the proposed amendments and that due consideration be given to the suggestions of members. J. T. Creighton seconded. Voice vote. Chair ruled it carried.

L. A. Carruth moved that the meeting rescind its recent action to delete these proposed amendments. J. W. Apple seconded. No vote, see following.

Wm. Rogoff stated the motion before the House should be referred to a Committee. Daniel Ludwig seconded. This was voted on by voice vote. Chair ruled it carried.

G. C. Decker moved that in light of previous actions, all the proposed amendments be referred to committee and that the next two presidents operate under the present Constitution. H. M. Harris seconded. Carried unanimously.

7. Past-President Porter conducted President-Elect Metcalf to the rostrum.

President Armitage presented the gavel to President Metcalf.

President Metcalf remarked as follows:

"I believe that one of the most important things after giving the Presidential acceptance remarks is shaking hands with new members coming along and with all old members. This I wish to do. I have been president only 30 seconds and have accumulated a huge file. There are many new and important projects to be undertaken. I propose to continue along the general lines as established by Past-President Armitage. I should like to thank all the Society members."

There was no new business.

Past Presidents Clausen and Decker brought President-Elect P. W. Oman to the rostrum. President Metcalf introduced Dr. Oman. Dr. Oman expressed appreciation for the honor given him. He stated he is sure he and President Metcalf could work together as a team.

Three new members of the Governing Board were presented. They were E. G. Lindsey, Morris Rockstein and J. E. Bussart.

The meeting adjourned 5:40 P.M.

Respectfully submitted,

R. H. NELSON, *Executive Secretary*

## ACTIONS OF THE 1958 GOVERNING BOARD

### Initial Meeting December 5, 1957

1. The Executive Secretary was instructed to obtain legal opinion on the constitutional actions at the final business meeting.

2. The Board adopted the policy that on papers previously carrying the footnote "Paid Paper" shall in the future be identified as follows, "Partial cost of publication of this paper was met by ..... with insertion of appropriate information."

3. A temporary committee was authorized to get the new publication, MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY (tentative title) underway.

4. A *Committee on Memorial Lectures* was set up.

5. Dallas, Texas, New Orleans, Louisiana and Tampa, Florida are to be contacted in regard to the 1961 meeting of the Society.

6. In the light of action at the final business meeting the Executive Secretary is to clear the records on Section mem-



bership since voting for members of the Governing Board will continue to be by Sections.

7. A parliamentarian is to be selected to assist the Governing Board at future annual meetings.

Respectfully submitted,  
R. H. NELSON, *Executive Secretary*

## REPORT OF THE AUDITOR

November 20, 1957

Mr. H. M. Armitage, *President*  
Entomological Society of America  
1530 P Street, N. W.  
Washington 5, D. C.

Dear Mr. Armitage:

In accordance with the recent request of Mr. R. H. Nelson, Executive Secretary of the Entomological Society of America, I have made an examination of the financial affairs of your Society for the year beginning November 1, 1956, and ending October 31, 1957. As a result of my examination, there are attached the following exhibits:

EXHIBIT "A" General Fund—Statement of Receipts and Disbursements for the year beginning November 1, 1956 and ending October 31, 1957.

EXHIBIT "B" Permanent Fund—Statement of Receipts and Disbursements for the year beginning November 1, 1956, and ending October 31, 1957.

EXHIBIT "C" Entoma—Statement of Receipts and Disbursements for the period beginning November 1, 1956, and ending October 31, 1957.

EXHIBIT "D" Thomas Say Foundation—Statement of Receipts and Disbursements for the year beginning November 1, 1956, and ending October 31, 1957.

Branch funds have not been accounted for in this report. There are at present five branches. Each branch has its own bank account, and has the authority to make expenditures for its activities and to receive registration fees for its meetings. These branches are not required to account to the Entomological Society of America for their receipts and expenditures.

In my opinion, subject to the above comments, the accompanying statements fairly reflect the recorded cash receipts and authorized disbursements made for the benefit of the Entomological Society of America for the period beginning November 1, 1956, and ending October 31, 1957, on a basis consistent with that of previous periods.

Very truly yours,  
JOHN A. HERL,  
*Certified Public Accountant*

## EXHIBIT "A"

### ENTOMOLOGICAL SOCIETY OF AMERICA

#### GENERAL FUND STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the Year Ended October 31, 1957

BALANCE NOVEMBER 1, 1956..... \$ 12,519.74

#### RECEIPTS

Membership Dues—Previous Years.....	\$ 489.00
1957.....	5,669.00
Future Years.....	119.76
Journal Subscriptions—Previous Years.....	1,022.00
1957.....	18,522.10
Future Years.....	312.80
Non-Member Journal Subscriptions—	
Previous Years.....	611.60
1957.....	19,104.17
Future Years.....	2,675.15

Annals Subscriptions—Previous Years.....	419.00
1957.....	6,082.80
Future Years.....	86.00
Non-Member Annals Subscriptions—	
Previous Years.....	229.14
1957.....	5,678.04
Future Years.....	851.80
Bulletin Sales—Member.....	9,042.94
Non-Members.....	1,174.16
Sales of Indices—Previous Years.....	1,914.68
No. 14.....	535.30
No. 15.....	635.46
Sales of Annual Reviews.....	7,230.10
Reprints—Journal.....	12,016.17
Annals.....	3,560.25
Advertising—Journal.....	4,587.10
Annals.....	432.80
Sale of Back Issues—Journal.....	2,198.19
Annals.....	737.87
Paid Papers—Journal.....	855.60
Annals.....	341.00
Sustaining Associates—1957.....	3,300.00
Future Years.....	100.00
Overpayments—Members.....	79.15
Non-Members.....	6.15
Interest on Savings Bonds.....	125.00
Subscription Services.....	73.75
Addressograph Service.....	318.17
Entoma.....	1,546.80
Thomas Say Foundation.....	883.79
Brochure No. 1.....	232.71
Insect Facts.....	77.03
Sale of Typewriter.....	25.00
Postage.....	44.19
Printing Charges.....	68.50
Miscellaneous Receipts.....	125.94
Meeting Income.....	3,250.93
Reimbursed Travel Expenses.....	433.26
Savings Account—Interstate Building Association.....	3,000.00
Net Bank Fees on Exchange.....	9.95
Payroll Taxes Withheld.....	4,165.91

TOTAL RECEIPTS..... \$125,609.21

TOTAL CASH TO BE ACCOUNTED FOR..... \$138,128.95

NOTE: The comments form an integral part of this statement.

#### DISBURSEMENTS

Journal—Printing and Mailing.....	\$24,372.92
Engraving.....	1,003.45
Reprints.....	4,375.19
Annals—Printing and Mailing.....	19,540.34
Engraving.....	1,412.14
Reprints.....	1,658.68
Costs—Back Issues.....	1,071.47
Costs—Indices No. 15.....	2,531.88
Costs—Annual Review.....	8,172.99
Refunds—Membership Dues.....	15.00
Subscriptions.....	62.55
Bulletin Expense.....	8,161.47
Premiums on Insurance.....	146.73
Miscellaneous Printing Expense.....	2,218.47
Payroll Taxes—Employee's Portion.....	4,165.91
Employer's Portion.....	450.34
Salaries and Wages.....	25,671.58
Telephone and Telegraph.....	169.43
Postage Expense.....	7,826.92
Office Supplies.....	2,065.52
Office Furniture and Equipment.....	2,423.50
Subscription Services.....	54.35
Transfer of Funds—Permanent Fund.....	125.00
Entoma.....	17.00
Thomas Say Foundation.....	883.79
Interstate Building Association.....	3,000.00
Traveling Expenses.....	2,302.65
Auditing Expenses.....	300.00
Meeting Expenses.....	1,473.96
Returned Checks.....	125.32
Binding Indices—No. 1 and No. 2.....	149.52
Zoological Society of London.....	100.00
Refunds of Overpayments.....	103.20
Publication Listings.....	30.00
Retirement Annuity—Executive Secretary.....	500.00
History of Entomology in World War II.....	164.80
Miscellaneous Expenses.....	6.97

TOTAL DISBURSEMENTS..... \$120,853.04

BALANCE OCTOBER 31, 1957..... \$ 17,275.91

#### ABOVE BALANCE ACCOUNTED FOR AS FOLLOWS:

Cash in National Bank of Washington.....	\$13,756.84
Per Cash.....	19.07
Cash in Interstate Building and Loan Association.....	3,500.00

TOTAL..... \$ 17,275.91

NOTE: The comments form an integral part of this statement.

# EXHIBIT "B"

ENTOMOLOGICAL SOCIETY OF AMERICA

## PERMAMENT FUND

### STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the Year Ended October 31, 1957

BALANCE NOVEMBER 1, 1956..... \$ 29,029.96

#### RECEIPTS

Interest on Series G, U. S. Treasury Bonds...\$ 125.00  
Interest on Province of Ontario Bonds..... 104.25  
Interest on Savings Account—First Federal  
Savings and Loan Association..... 348.44  
Interest on Savings Account—Perpetual  
Building Association..... 274.08  
Increment in Redemption Value of Series F,  
U. S. Treasury Bonds..... 169.00

TOTAL RECEIPTS..... 1,020.77

BALANCE OCTOBER 31, 1957..... \$ 30,049.73

#### ABOVE BALANCE ACCOUNTED FOR AS FOLLOWS:

Face Value	Securities	Book Value
\$ 2,000.00	Province of Ontario, 5M De-	2,000.00
	benture Bonds of 1959—Cost, \$	
5,000.00	U. S. Treasury Bonds—Series	5,000.00
	G—Cost.....	
6,500.00	U. S. Treasury Bonds—Series	6,581.00
	F.....	
13,500.00		12,681.00

#### CASH

First Federal Savings and Loan Association...\$10,217.41  
Perpetual Building and Loan Association.... 7,151.32

TOTAL CASH..... 17,368.73

TOTAL SECURITIES AND CASH..... \$ 30,049.73

NOTE: The comments form an integral part of this statement.

# EXHIBIT "C"

ENTOMOLOGICAL SOCIETY OF AMERICA

## ENTOMA

### STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the Year Ended October 31, 1957

#### EDITION 11

BALANCE NOVEMBER 1, 1956..... \$ 250.26

#### RECEIPTS

Book Sales.....\$ 2,043.83  
Advertising and Listing..... 89.80

TOTAL RECEIPTS..... 2,133.63

TOTAL TO BE ACCOUNTED FOR..... \$ 2,383.89

#### DISBURSEMENTS

Stationery and Office Supplies.....\$ 75.00  
Postage and Mailing Expense..... 333.81  
Promotional..... 72.00  
Banking and Auditing Service..... 37.85  
Editorial and Secretarial Work..... 850.73  
Transfer of Funds to Entomological Society  
of America..... 1,014.50

TOTAL DISBURSEMENTS..... \$ 2,383.89

#### EDITION 12

BALANCE NOVEMBER 1, 1956..... \$ 0-

#### RECEIPTS

Book Sales.....\$ 1,175.94  
Advertising and Listing..... 674.00

TOTAL RECEIPTS..... 1,849.94

TOTAL TO BE ACCOUNTED FOR..... \$ 1,849.94

# DISBURSEMENTS

Stationery and Office Supplies.....\$ 42.50  
Postage and Mailing Expense..... 758.54  
Promotional..... 231.09  
Telephone and Telegraph..... 13.52  
Banking Service..... 5.57  
Editorial and Secretarial Work..... 140.40  
Printing..... 58.75

TOTAL DISBURSEMENTS..... 1,250.37

Transfer of Funds to Entomological Society  
of America..... 500.00  
Bank Balance—October 31, 1957..... 99.57

TOTAL ACCOUNTED FOR..... \$ 1,849.94

NOTE: The comments form an integral part of this statement.

The above statement was prepared from information furnished without independent verification by me because of geographical distribution of original records. Therefore, no opinion can be expressed either as to its accuracy or to the consistency with which generally accepted accounting principles were applied.

# EXHIBIT "D"

ENTOMOLOGICAL SOCIETY OF AMERICA

## THOMAS SAY FOUNDATION

### STATEMENT OF RECEIPTS AND DISBURSEMENTS

For the Year Ended October 31, 1957

BALANCE NOVEMBER 1, 1956..... \$ 2,176.34

#### RECEIPTS

Interest on Savings Account.....\$ 104.64  
Sale of Books..... 883.79

TOTAL RECEIPTS..... 988.43

TOTAL TO BE ACCOUNTED FOR..... \$ 3,164.77

#### DISBURSEMENTS

BALANCE, OCTOBER 31, 1957..... \$ -0-

TOTAL DISBURSEMENTS..... \$ 3,164.77

#### ABOVE BALANCE ACCOUNTED FOR AS FOLLOWS:

Savings Account—Guardian Federal Savings  
Association..... \$ 3,164.77

NOTE: The comments form an integral part of this statement.

# BLAUVELT MEMORIAL LABORATORY

A new \$15,000 insecticide laboratory, financed largely by the florist industry, was dedicated at Cornell University, Ithaca, N. Y., Wednesday, January 15, 1958 to the memory of a professor of entomology.

The nearly-completed Blauvelt Memorial Laboratory in the State College of Agriculture at Cornell was constructed for research in controlling insects and mites that attack flowering plants.

Professor William Ernest Blauvelt, who died in February 1953, was the first entomologist in New York State to devote full time to the study of insect pests of florist crops.

After his death, the state's commercial florist industry started a memorial fund and raised \$5,000 toward the new laboratory. Other groups including the New York State Florist's Club, the New York State Flower Growers' Assn., Lord and Burnham Co. of Irvington on Hudson, individual flower growers, and Cornell University contributed the rest of the money.

ESA member John A. Naegele, in charge of the florist pest control program for the Department of Entomology, said the laboratory's first big job will be to find a control for the red spider which is now resistant to most insecticides.

## REPORTS OF STANDING COMMITTEES FOR 1957

### REPORT OF THE COMMITTEE ON INSECT SURVEYS

The committee met in Room 3115 South Agriculture Building, Washington, D. C. on May 27-28, 1957.

ATTENDANCE	ABSENT FROM COMMITTEE
R. W. Every	L. D. Newsom
Chairman	C. A. Bower
N. O. Berry	J. A. Beal
R. D. Quarterman	
D. W. Hamilton	GUESTS
W. E. McCauley	M. P. Jones
J. W. Bongberg	W. H. Anderson
(For J. A. Beal)	E. D. Burgess
K. Dorward	L. F. Curl
(Ex Officio)	
P. W. Oman	
(Ex Officio)	
L. G. Davis	

The Committee covered an agenda which had been prepared by Committee members in advance of the meeting covering sixteen topics and an additional four topics which came up during the course of the discussion. The following recommendations were agreed upon by vote of those present; and with slight later revision as a result of correspondence between the chairman and Committee members are submitted to the Society for final approval:

1. *Whereas* there is a need for information relating to quantitative losses attributable to insects, and whereas considerable information is already available from various sources, and whereas industry has expressed interest in furthering studies to develop more complete and comprehensive information on this subject, as well as information relating to the savings resulting from the use of agricultural chemicals; therefore, this Committee recommends that the Society explore with representatives of industry cooperative projects that will advance and augment existing information and which will be designed to provide knowledge on this subject on a nation-wide basis.
2. *Whereas* the value of detection and appraisal have been demonstrated, and whereas, efficiency of these surveys depends upon improved techniques, the Committee, therefore, recommends that the Society encourage all entomologists and entomological agencies to first strengthen and broaden insect surveys and second, intensify research designed to improve efficiency of survey methods, with particular emphasis on those pests which are susceptible to eradication or quarantine.
3. *Whereas* one of the objectives of the Cooperative Surveys program is to forecast insect populations, the Committee again recommends that the Society encourage that emphasis be placed on cooperation of all entomologists in the attainment of this objective by making information about insect conditions available through their State Clearing House and by development of forecasting procedures.
4. *Whereas* the value of the Cooperative Survey has been repeatedly demonstrated, and whereas some State-Federal agreements providing for survey entomologists have been established on less than 12-month-per annum basis, and whereas the advantages of full-year basis outweighs the part-time arrangements; therefore, this Committee suggests that the Society recommend that, when possible, all cooperative survey agreements be established on a 12-month basis.
5. *Whereas* it has come to the attention of this Committee that commendable progress has been made during the past year by several States in the assembling and release of information relating to losses attributable to insects, and related arthropod pests, as well as estimates of savings being effected by pest control procedures; therefore, this Committee recommends that the Society commend all those States which have been responsible

for this progress; and urge expansion of this effort throughout the United States, with special attention to uniformity of procedures and reporting; and further recommends the Plant Pest Survey Section continue its leadership in coordinating this important work.

6. The Committee suggests that the Society again commend the Plant Pest Survey Section for further improvement in the coverage and quality of information contained in the Cooperative Economic Insect Report.

7. The Committee suggests that the Society commend the Insect Identification and Parasite Introduction Section for its efficient handling of the increased work load which has been brought about by the expansion of survey activities in the United States.

The Committee moves the adoption and proper channelling of these recommendations through the office of the Executive Secretary, Entomological Society of America.

Respectfully submitted,

N. O. BERRY	T. D. NEWSOM
R. D. QUARTERMAN	C. A. BOWER
D. W. HAMILTON	J. A. BEAL
W. E. MCCAULEY	R. W. EVERY, Chairman

### REPORT OF THE PROGRAM COMMITTEE

The *Program Committee* recommends that an *Exhibit Committee* continue to be appointed annually by the President of the Society to function in connection with the annual meeting. Exhibits have become such an important part of the annual meeting that a separate committee is required to adequately develop this aspect of the meeting.

The program for the 1957 Annual Meeting presented in Memphis during December 2-5, is, in essence, this committee's report. In summary, the technical portion includes:

General program—1 symposium, 2 invitational addresses, and 6 motion pictures; Section and Sub-section program—6 symposia of one-half day each, 5 invitational papers, and 218 submitted papers.

Innovations this year were an invitational address by an authority in a field of science related to but distinct from entomology and an index of abstracts by senior authors which was added to the program to aid members in locating papers. Recent changes in programing which have proved to be of value were retained. These included a synopsis of the program in chart form, a program supplement distributed at the registration desk to inform members of changes in and additions to the printed program, and scheduling the final business meeting on the next to the last day in order to assure a quorum for the transaction of business.

An increase of approximately 25% in the number of submitted papers over last year re-emphasized the necessity of scheduling and timing all papers and the rigid adherence to this schedule.

As the Society continues to grow the number of submitted papers will increase still more, necessitating program adjustments in order to accommodate them. Therefore, in 1958, the *Program Committee*, in cooperation with the office of the Executive Secretary, proposes to circulate a questionnaire to the membership of the Society to determine their wishes concerning the nature of such future program changes.

Respectively submitted,  
L. D. ANDERSON  
P. W. OMAN  
E. N. WOODBURY, Chairman

### REPORT OF THE COMMITTEE ON INSECTICIDE TERMINOLOGY

The Committee on *Insecticide Terminology* recommends that:

1. The Entomological Society of America continue to publish annually an article on the JOURNAL OF ECONOMIC

ENTOMOLOGY listing common names of insecticides for use in the Society publications (e.g. HALLER, H. L. Common names of insecticides. Jour. Econ. Ent. 50(2): 226-228, 1957).

The *Committee on Insecticide Terminology* hopes to complete a revision of "Common Names of Insecticides" in time for publication in the April, 1958 issue of the JOURNAL OF ECONOMIC ENTOMOLOGY. The appearance during the past year of the following list of insecticides is also noted:

KENAGA, E. E. Commercial and experimental organic insecticides. Bull. Ent. Soc. Amer. 3(2): 13-36, 1957.

This latter publication should serve as a valuable supplement to the list of "Common Names of Insecticides" which has been appearing annually in the JOURNAL OF ECONOMIC ENTOMOLOGY. It is believed that a shorter list, revised annually, can adequately meet the needs of chemical nomenclature in Society publications.

The Entomological Society of America through the *Committee on Insecticide Terminology* is now a member of the American Standards Association (ASA) Sectional Committee K62 (Common Names for Pest Control Chemicals) which in turn is affiliated with the International Organization for Standardization. The scope of the ASA Sectional Committee K62 is to develop common names for chemicals having potential use as pesticides. The U. S. Department of Agriculture has agreed to assume administrative sponsorship of this Committee. The ASA Sectional Committee K62 is comprised of the following organizations:

Amer. Chemical Society	Chem. Specialties Mfgs. Assoc., Inc.
Amer. Medical Assoc.	Ent. Soc. of Amer.
Amer. Phytopathological Soc.	Interdepartmental Committee on Pest Control
Amer. Soc. for Horticultural Science	National Agr. Chemicals Assoc.
Amer. Soc. of Plant Physiologists	U. S. Trade Mark Assoc.
Assoc. of Amer. Pesticide Control Officials	Weed Soc. of Amer.
Can. Standards Assoc. (Liaison)	

Dr. H. L. Haller, former Chairman of the ESA Committee on Insecticide Terminology, is Chairman of the ASA Sectional Committee K62.

Respectfully submitted,  
 STANLEY D. BECK  
 THOMAS G. BOWERY  
 WILLIAM M. HOSKINS  
 CLIFFORD C. ROAN  
 CARROLL N. SMITH  
 PAUL A. DAHM, *Chairman*

#### REPORT OF THE INSECTICIDE REFERENCE STANDARDS COMMITTEE

The *Committee on Insecticide Reference Standards* was established in 1951 for the purpose of setting up standardized insecticides for experimental purposes. Six E.S.A. standards have been distributed, first through the Wisconsin Alumni Research Foundation, and more recently through the Nutritional Biochemicals Corporation. In 1957 we devoted our effort to the expansion of ESA standards to a number of common insecticides with the following qualifications:

1. Standards should be in large scale production and be uniform in quality.
2. Standards should have physical and chemical data, especially the percentage of active ingredients.
3. Standards should be reproducible by manufacturers.
4. Standards should be stable compounds with reasonably long shelf-lives.

On the basis of these qualifications, twelve new ESA standards have been obtained, and are now available or will shortly be available for distribution by the Nutritional Biochemicals Corporation, 21010 Miles Avenue, Cleveland 28, Ohio. The complete list of ESA standards is as follows:

aldrin, technical  
 allethrin, technical 90%  
 Aramite, technical 90%

chlordane, technical  
 DDT, technical 77.2% p,p'  
 p,p' DDT  
 dieldrin, technical  
 endrin, technical  
 heptachlor, technical  
 lindane  
 methoxychlor, technical  
 methyl parathion, technical 80% in xylene  
 oxev, technical 94%  
 parathion, technical 98.8%  
 Perthane, technical  
 Phosdrin, technical  
 Strobane, technical  
 toxaphene, technical

It is the hope of your committee that through the addition of new standards and better specifications for standards the ESA standards will be more extensively used in insecticide research. We would very much like to have suggestions as to the improvement and promotion of the ESA standards.

Respectfully submitted,  
 F. W. FISK  
 J. E. CASIDA  
 G. F. LUDVIK  
 E. E. IVY, *Chairman*

#### REPORT OF THE COMMITTEE ON COMMON NAMES OF INSECTS

Interest in common names for insects continues at a high level and the Committee has not appreciably reduced the backlog of proposals. During the past year 74 new proposals for additions and 5 proposals for changes in approved common names have been considered by the Committee. Sixty of the additions and 3 of the changes were approved and will be published for consideration by the members of E.S.A. in the December number of the BULLETIN.

Perhaps the most noteworthy development of the year was a decision that henceforth, in lists prepared by the Committee, author's names will be spelled out in full. This change was initiated by R. F. Smith and approved unanimously. In the past, abbreviation of author's names has been the source of much confusion. The additional cost of printing names in full will be of small consequence compared with the increased utility of future lists.

During the two years since the last Official List was published scientific names of 18 species have been changed in some way and 36 species have been added. According to present prospects names for at least 100 additional species will be added during 1958. If the List is to continue to serve as an effective guide to approved common and currently correct scientific names, it should be republished as soon as possible after the end of 1958.

Respectfully submitted,

F. P. KEEN	R. F. SMITH
A. V. MITCHENER	D. E. HARDY
R. H. PAINTER	L. C. KUTERT
H. H. SCHWARDT	J. L. LAFFOON

REECE I. SAILER, *Chairman*

#### REPORT OF THE COMMITTEE ON MEMBERSHIP

During 1957 the *Membership Committee* tried to get each Branch of ESA to conduct a vigorous campaign to get new members within the scope of its own specific organization. A special appeal was attempted also to get all state institutions to sign up graduates in Entomology. Some eight states were found to have no student members in Entomology in ESA.

While it has been difficult to get reports from all Branch representatives, the final membership total indicates a substantial number for the year. The efforts of the Eastern Branch under the direction of Randall Latta and Elton J. Hansens was very much worthwhile and is greatly appreciated. G. G. Rohwer of the Cotton States Branch and many others worked hard and, we feel, deserve recognition. The committee feels that a personal appeal by an old



member to a new one should be encouraged. They also feel that each and every member should try to get new members interested in the National Association. This was stressed this year and special thanks is given to all who have assisted.

The Executive Secretary's office was very helpful in making suggestions and in supplying information on many points.

During the year 367 applications for membership were received and submitted to the society for consideration.

Respectfully submitted,  
L. A. CARRUTH  
W. G. EDEN  
D. L. COLLINS  
P. A. GLICK  
RANDALL LATTA  
C. W. WINGO  
GEORGE D. JONES, *Chairman*

## REPORT OF THE COMMITTEE ON ENTOMOLOGICAL NOMENCLATURE

1. The Committee has discussed a proposal to undertake positive action on the preparation of a catalogue of the Family Names of Insects. A study of family names of American insects was initiated by the *American Committee on Entomological Nomenclature* (ANNALS 40:164, 1947); but very little progress was made during the subsequent years. The present committee has carefully reconsidered the project, and are of the opinion that a catalogue of family names is desirable and feasible. It is proposed that specialists be solicited to help prepare a bibliographic catalogue which will provide a world-list of family-group names showing priority and synonymy. It is believed that a comprehensive catalogue will help eventually in stabilization of family-name nomenclature.

2. The Committee made a study on the question of the interpretation of the "i" and "ii" endings in patronymics (Ref.: "Copenhagen Decisions" page 54, paragraph 91). The Committee was agreed that the statement on the optional usage of "i" and "ii" was ambiguous and needed clarification. A consensus of opinion and recommendation of the Committee is being prepared and will be sent to the International Commission on Zoological Nomenclature for consideration during the meetings at London.

3. The Committee made a study on the question of the use of parentheses around the names of authors when a specific name has been transferred from one genus to another. There is no provision in the International Code for the optional deletion of parentheses (Article 23). The Committee is aware that the proper use of parentheses has a bibliographical convenience. However, most members of the Committee were agreed that the use of parentheses may become somewhat of a nuisance, and optional use, particularly in non-taxonomic papers, is desirable. Views of the Committee on this matter are being compiled and will be submitted to the International Commission for their information.

Respectfully submitted,  
J. L. LAFOON  
H. K. TOWNES  
J. A. SLATER  
C. W. SABROSKY  
R. L. USINGER  
G. S. WALLEY  
J. L. GRESSITT  
C. D. MICHENER  
J. T. MEDLER, *Chairman*

## REPORT OF THE COMMITTEE ON FINANCE

The *Committee on Finance* recommends that:

1. Provision be made, effective January 1, 1959, for meeting the following new expenses:

(Following summary is as accepted by the Governing Board)

PURPOSE	AMOUNT NEEDED
a. Editorial Services	
(1) Additional salary, managing editor	\$5,000
(2) Salary full-time editorial asst.	4,600
(3) Honoraria, two subject editors	2,400

\$12,000

b. Inauguration of new MISCELLANEOUS PUBLICATION	3,000
e. Dues to AIBS (\$1.00 per active member per year)	4,000
	<b>\$19,000</b>

2. The needed revenue be obtained as follows:

MEANS	INCOME EXPECTED
a. Increase in dues of active members (subject to vote by members)	
(1) From \$10.00 to \$13.00 for one journal	9,900
(2) From \$16.00 to \$19.00 for two journals	2,100
	<b>12,000</b>
b. Increase in non-member subscription rate from \$12.00 to \$15.00 for each journal, or \$27.00 to a subscriber ordering both in one order	7,000
	<b>\$19,000</b>

3. Rising costs of publication and their storage be restrained by encouragement of dual publication of research in brief macro- and in extended micro-form and of micro-reproduction of existing conventional publications.

## Justification of Recommendations

1. If no action were taken to change any rates or rules governing the income of the Society, we might still expect an annual increase in revenue resulting from increase in membership, subscriptions, advertising, etc. Such increases may be expected to take care of salary increments, greater cost of official travel, the rising cost printing, supplies, equipment, etc. The Committee on Finance is not concerned in this report with such items, which will be included in the regular balanced budget for fiscal year 1958. The Committee is here concerned only with large new items, requiring annual expenditures that cannot be met without changes in our present rates—items that will not appear in the 1958 budget, but will, if approved by the Board and the membership, appear in 1959.

a. *Editorial services* required by the Society for its two journals are of two kinds: (1) Evaluation of manuscripts for scientific merit in the light of existing policies and precedents, including acceptance for publication, provisional acceptance, or rejection; (2) Processing of accepted or provisionally accepted manuscripts for the printer, including all correspondence with the authors, copy editing to insure conformance with accepted rules of English composition and spelling, abbreviation, nomenclature, etc., marking copy in the current style and format of each journal, marking illustrations for the engraver, reading and correcting galley proof, making up each issue of each journal and reading page proof critically. The duties also include all necessary contacts with the printer on his work and schedules.

The first kind of editorial service should be performed by a leading economic entomologist for the JOURNAL and by an outstanding non-economic entomologist for the ANNALS, each assisted by an editorial board of specialists and each receiving only an honorarium for his services, which he might wish to spend for clerical help. Let us call him a subject editor, whose title would be Editor of the JOURNAL or Editor of the ANNALS. He would deal only with his board and other advisers and with the editor in the central office in charge of the second kind of editorial service, the so-called managing editor.

The second kind of editorial service should be performed by an experienced entomologist who has the desire and the ability to work tirelessly to maintain the quality and timeliness of the publications of the ESA. This position of managing editor should be a full-time occupation, including the management of an editorial staff and responsibility for the production of the JOURNAL, ANNALS, BULLETIN, and MISCELLANEOUS PUBLICATIONS, if the last is launched.

What editorial services do we have now in the terms of the services described above? We have a subject editor for the ANNALS, who probably does more than he should, and a subject editor for the JOURNAL, Dr. Fred Poos, who tries also to serve as managing editor of both the JOURNAL and the ANNALS. Dr. Poos is being paid \$4,200 to do a more than full-time job that should pay \$9,200. He has only one part-time assistant who is paid \$2,500; he needs this part-time assistant plus a full-time assistant, who should be paid at least \$4,600. At present he is getting help as needed from others in the office, including the Executive Secretary, thus taking time from other work and absorbing an unknown amount of help at an unknown cost. The Executive Secretary estimates that \$8,300 worth of staff time in addition to the \$6,700 paid Dr. Poos and his assistant went into editorial work in Fiscal Year 1957. Mr. Nelson should remain the subject editor of the BULLETIN but the production of it should be turned over entirely to an adequately paid managing editor and staff. To summarize, the editorial services in ESA need reorganization, with payment of honoraria to two subject editors, and adequate salary to a full-time managing editor, and the addition of a full-time, well-paid editorial assistant to the staff. Total amount of new money required, \$12,000.

b. See report of the *Editorial Policy and Procedures Committee* under Special Committees.

c. *Dues to AIBS*. Principally to enable ESA to participate "in a national effort in the interests of the whole science of biology and on behalf of all biologists," a special committee on Society membership in, or affiliation with, the American Institute of Biological Sciences will recommend that "the Society pay membership dues to the Institute at the preferred rate of one dollar per year per individual member . . ." Approximately \$4,000 will be required.

2. The committee recommends obtaining the needed new revenue, \$19,000 in two ways: by increase in dues of members and by increase in the non-member subscription rate.

a. It is important that some of the needed new money be obtained from an increase in dues of active members so that each will feel that he is directly contributing to the support of AIBS and its purposes in the amount of \$1.00 per member per year.

b. A study made by Dr. Apple indicates that it would not be out of line with present practice to increase our rate from \$12.00 to \$15.00. Three other biological journals containing fewer pages per year than our JOURNAL are now charging \$14.00 to non-member subscribers.

3. (See also Report of the *Editorial Board, Journal of Economic Entomology*.) Publication of research need not be as expensive as it is. The concept of what constitutes adequate journal publication needs alteration. In the past a journal article was expected to present not only the results of an investigation, but the background of it and enough detail about methods, materials, design of experiments, and analysis of data, etc., to convince the reader that the results were reliable, and even to enable him to duplicate the observations and experiments in order to confirm the results himself. The growing cost of publication and demand for journal space has tended partially to eliminate information previously regarded as essential. The answer, perhaps, is to give up trying to present concomitant proof with research results. Instead, it might be well to publish in a journal only enough background to make the work intelligible, give the results and an estimate of their significance, and reserve for separate publication in microform descriptions of specimens, materials, methods, design and analysis of experiments, data, graphs, etc., that a specialist would need to evaluate or duplicate the work.

Such dual publication in macro- and microform will prevent waste, reduce future requirements for storage space, encourage the acquisition of special mobile libraries by specialists, and make possible again complete publication

of all aspects of an investigation, but only for those who need to know. It is hoped that ESA will take proper action, by resolution or otherwise, to encourage the repeal of international rules that, the writer is told, have the effect of prohibiting publication of descriptions of new species in microform. Acceptance of dual publication in taxonomic research should remain existing economic barriers to unlimited publication.

*Final Remarks.* The ABC (Apple, Bussart, Campbell) Committee on Finance did not have an opportunity to meet since the ESA convention last year in New York. Consequently, this report is really the expression of the views of an individual, who was greatly helped in correspondence by the members of his committee and the officers of the Society. He was helped even more by the ever-ready willingness of Mr. Nelson and Dr. Poos to show him any records he wished to see or to answer questions. ESA has a central office of which it can be proud, but with greater support and more personnel and space its work can be increased in volume to good advantage.

The actual money savings, if any, that might be achieved by the dual publication system advocated above have not been worked out. It would be a worthwhile exercise if a member of a future finance committee would prepare in two forms an account of an investigation that he wishes to publish. One form would be conventional (A) as now required by the ANNALS or the JOURNAL; the other would be greatly abbreviated, (B) for the ANNALS or JOURNAL, and a manuscript containing all details (C) would also be prepared for direct reproduction in microform as if to be sold later by ESA to anyone who might want all the details of the investigation. Would the cost of (A) be greater or less than (B & C)? That is the problem.

Another study is needed on the current advertising program for the two journals. Advertising is not obtainable automatically; even the good-will advertising in the ESA journals can fade away if the advertisers are not cultivated. A new finance committee should examine the schedule of advertising rates to be sure that it is in line with current practice and should look into the possibility of engaging some of the time of a capable advertising agent. The acquisition and servicing of advertising ought not to be a duty of either the Executive Secretary or the Managing Editor.

Respectfully submitted,

JAMES W. APPLE

J. EVERETT BUSSART

F. L. CAMPBELL, *Chairman*

#### REPORT OF THE COMMITTEE ON PROFESSIONAL TRAINING, STANDARDS AND STATUS

The report of the committee was accepted by the Governing Board. A condensed version of the report is to be published in a later issue of the BULLETIN.

#### INSECT PHOTO SALON

"At its annual meeting on June 25-27, 1958, the Pacific Branch of the Entomological Society of America will hold its third annual Insect Photo Salon at the El Cortez Hotel in San Diego, Calif. All persons, professional or amateur, are invited to submit photographs of insects, spiders, and related arthropods for exhibit at this Salon. All requests for entry blanks and information as to entries should be addressed to:

DR. LELAND R. BROWN, *Co-chairman*  
Insect Photo Salon Committee  
Department of Entomology  
University of California  
300 Veteran Avenue  
Los Angeles 24, Calif."

## REPORTS OF EDITORIAL BOARDS FOR 1957

### REPORT OF THE EDITORIAL BOARD

#### ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA

The current year has witnessed two significant events in the conduct of the *ANNALS*: (1) the appointment of Dr. Roland F. Hussey as Associate Editor; and (2) the conclusion of the service as Editor of Dr. M. T. James, who has asked to be relieved as of 1 January 1958. The present Editorial Board has welcomed the first of these events as much as it regrets the necessity of the second. We should like to lead the Society in expressing to Dr. James the appreciation that all of us have long felt for his effective and self-sacrificing attention to this arduous duty. We therefore recommend respectfully that the Governing Board instruct the Secretary of the Society to draw up a letter to Dr. James, expressing the gratitude of the Society for his devoted efforts as Editor in our behalf and in behalf of entomological science generally.

As will shortly appear, and in many other ways not so evident, Dr. Hussey has been a real asset to the operation of the *ANNALS*, and is excellently qualified to assume the burden relinquished by Dr. James. The Editorial Board appropriately requests that the Governing Board extend to Dr. R. F. Hussey an offer to the Editorship of the *ANNALS*.

During the year just past, the total of mailed copies of an issue of the *ANNALS* has risen from about 1,600 to 1,800, an increase of some 12.5%. In the same period, printing has been brought up to schedule, with the numbers being mailed on the 15th of their respective months; and the backlog of accepted papers has been eliminated. These noteworthy accomplishments have been made possible both through the valiant efforts of Bob Nelson and Fred Poos in the Washington office; and by mailing 7 instead of the usual 6 issues during the single fiscal year. The cost of so doing has been but \$19,000.00 for the 7 issues; for 6 issues, the figure is slightly less than \$17,000.00, and thus well within the budgeted amount of \$18,000.00.

Delay between acceptance and printing of an article in the *ANNALS* is now no more than 6 or 7 months, which is about as close as technical feasibility will permit. In fact, the Editors report that the size of backlog has now been cut to the point where they are becoming nervous over the possibility that not enough papers will be submitted to fill subsequent issues. The Editorial Board believes that this welcome state of affairs, toward which the Society has been working for a long time, can be properly stabilized merely by giving suitable publicity among prospective authors to the speed with which they may now expect to see themselves in print.

There are two questions of policy in regard to publication that the Editorial Board wishes to bring to the attention of the Governing Board.

1. Some members of the Editorial Board feel strongly that omission of the "Paid Paper" footnote from articles receiving earlier publication through payment may work numerous injustices, both to other members of the Society, to scientists generally, and to the authors in question. Others of the Board are less vehement in the matter, or perhaps merely less voluble. In any event, inquiry among other members of the Society has disclosed some opposition to the proposed omission of the "Paid Paper" footnote; and even to the general practice of accepting paid papers for earlier publication. For these reasons, the Editorial Board believes it would be well to air these questions among the membership at large, and to promulgate concerning these questions policies that unquestionably reflect the will of the majority.

2. Concerning present requirements for membership in the Society among prospective authors and co-authors.

Last year's Editorial Board considered this problem and did not reach unanimous agreement. The policy then current was continued by the Governing Board.

Reduction of the backlog and increased speed of printing has weakened the cogency of certain arguments for maintaining the present restrictions. It is furthermore a fact that present regulations are causing the Editors to reject certain papers they would otherwise be anxious to publish. Other arguments pro and con are about as before. In these circumstances, the Governing Board may wish to reconsider the matter.

Respectfully submitted,  
R. I. SAILER  
M. H. HATCH  
L. E. ROZEBOOM  
J. A. ADAMS  
L. E. CHADWICK, *Chairman*

(Governing Board action on the foregoing. 1. See under actions of the 1958 Governing Board—Initial Meeting).  
(2. The recommendation of the Editorial Policy and Procedures Committee was adopted).

### REPORT OF THE EDITORIAL BOARD

#### JOURNAL OF ECONOMIC ENTOMOLOGY

##### Microrecording for Entomologists

Dr. Poos has handled most of the editorial problems of the *JOURNAL OF ECONOMIC ENTOMOLOGY* in such a satisfactory manner that the Editorial Board has had little to do. Consequently, my report as outgoing chairman need not point with pride to knotty problems tackled and solved. I would like to suggest that the editorial board, in order to increase its usefulness, look ahead to future needs and future progress. In other words, if they won't give us trouble we can borrow some.

With the above in mind let's consider some of the problems of documentation facing entomologists in general and this society and its publications in particular. It's not news to anyone that published words are multiplying like flies. Furthermore, instead of dying in a few days and moldering decently into dust, they stick around for hundreds of years, defying all efforts to keep them properly housed and cataloged.

Everyone knows how libraries struggle to achieve a useful degree of completeness and then find their usefulness impaired by the sheer volume and complexity of their collections. Less publicized but just as real to many of us is the problem of the individual who wants the pertinent literature in his own research specialty gathered around him for quick and easy reference. When he has no major library at his disposal, it is almost imperative that he accumulate some sort of a reprint collection. Even those who can refer to nearby libraries find there is nothing quite like pulling that critical reprint off the laboratory shelf. Obviously, acquiring, shelving, and cataloging an adequate reprint collection becomes a major undertaking. The researcher is in danger of turning into a mere bibliophile.

The individual scientist is also faced with the problem of shelving back numbers of journals. Providing he has the reference citations at hand, journals on the office shelves are handier than they are in the library. However, he frequently finds the citations in library catalogs, in which case he uses library copies anyhow. When moving day comes, the old question arises, are these hundreds of pounds of seldom-used back numbers worth the expense and trouble of shipping them?

Here is the crux of the matter. Are the problems of entomological documentation viewed in the perspective of their inevitable future growth, sufficiently frightening for us to consider drastic measures for their solution?



Are we ready to go through a transition period during which old systems are still being used and new ones are having growing pains? Can we give up the comfortable old ways for new ones less familiar but more efficient?

I am asking you to consider photographic microreproduction as the only apparent relief to the problem of storing and cataloging entomological literature and records.<sup>1</sup> Various forms of microreproduction have been developed but no simple form answers all purposes. Rolls of microfilm were used first. Then the rolls were cut into strips and inserted into transparent jackets mounted on filing cards to make possible a logical filing system. With such cards one could readily locate the article and page desired. Anyone who has dealt with rolls of microfilm can appreciate the importance of this step. The next advance was the microcard (a trade name of the *Microcard Corporation*). It consists of a series of 40 or more positives from microfilm on a card of relatively indestructible photographic paper. These are simple 3 x 5 cards and as such are handier to file and read than microfilm in jackets.

Microprint cards (a product of the *Readex Corporation*) are actually engravings on 6 x 9 cards, each containing 100 pages of the original text. Since the process is not photographic the cost is less than that of other methods when there is a basic demand for at least 100 copies. The cards are stored in envelopes. Still another development is the minicard (an Eastman Kodak product). This is a piece of photographic film with a reduction value of 1:60 and a code system of clear and opaque dots in addition to the document images.

The foregoing systems all lose economy where only a few pages of text are needed per card or strip. Furthermore, it is impractical to add further images at a later date. Microtape and microstrip are similar products designed to solve these problems. They consist of opaque photographic microprints on tape glued directly to file cards. Additional images can be glued to the cards as desired. The cost is thus controlled largely by the number of pages per card.

Each system has certain merits not possessed by the others and thus each has its place in a complete library system. However, individual entomologists should be able to satisfy most of their requirements with a combination of microcards and microstrip or microtape. Both are adapted to limited orders and, taken together, they provide considerable flexibility.

Microform readers are naturally as important as the forms themselves. Each will tend to create a demand for the other. Desk readers are available for both transparent and a hand reader is available for limited periods of reference. In general it can be stated that satisfactory and reasonably priced equipment exists. Improvements will no doubt be made as microforms gain in popularity.

Having considered the need for microreproduction and some of the facilities available let us consider some of the particular uses to which entomologists might wish to put it.

1. JOURNAL publication on microcards only. The ideal journal for this method would specialize in well-documented articles of between 20 and 40 pages. The ANNALS is obviously better adapted than the JOURNAL. Scientific notes pose a tough problem. Printed on separate cards they would cost nearly as much as fully illustrated 40-page articles.

2. Publication in both forms; the subscribers would receive the conventional form quarterly and the microcard form annually. Members could subscribe to one or both. This would probably increase the cost of publication of each system since many of the subscribers would take only one system.

3. Providing, in addition to the standard form, a service of microcards for individual requests. The association

could probably reduce the cost of the cards by accumulating requests, especially if some of the larger libraries could be persuaded to purchase extra copies for exchange purposes.

4. Publication of short articles (up to 2 pages) in a journal of reduced size. The pages would be printed on one side only and would be perforated so that 3 x 5 sheets could be prepared and placed in file envelopes. Articles of greater length would be published in microcard form with no restrictions on length, tabular material, or illustrations other than dictated by common sense. When desirable, the short articles would also appear on microcards in more extended form. Such a system would be adapted to the JOURNAL which publishes many short papers and scientific notes but is also under pressure to present longer articles with extensive tabular material.

Naturally, the future of these and other systems that could be dreamed up is dependent upon the cost factors involved. These all in turn dependent in part upon the volume of business, which is again limited by cost as well as other factors. The problem of breaking out of this economic circle faces developers of all drastically new ways of doing things. According to a statement by the microcard corporation, all organizations that have seriously tried microcard documentation have been successful. Such statements are naturally subject to bias but should be worth thinking about.

The individual is faced with a number of problems somewhat distinct from those of journal editors. How can he best obtain, store, and catalog books and pamphlets already published and those still to be published but not in microcard form? Apparently the cost of converting a reprint collection to microtape cards is not exorbitant. If microfilms of the outstanding reprint collections in various fields were stored with microtaping organizations, a specialist could purchase at a normal cost a vest-pocket library, complete with built-in filing system. Unfortunately, commercial development in this field may encounter copyright problems.

Many authors build up their reprint collections by purchasing reprints of their articles to exchange with other authors. It would be entirely logical for the journals to sell microcards rather than reprints to such individuals.

Ultimately, nearly all technical works may be published as microforms. Satisfactory color reproduction is not yet available but methods are being developed. The prospect is rather grim but full scale digests and popularized publications may sweeten the pill.

Mr. Sophar, a representative of the Microcard Corporation, is presenting more detailed information during the regular sessions. He is much better qualified than I to discuss technicalities of the methods themselves and the cost factors involved.

Respectfully submitted,

F. S. ARANT  
E. L. CHAMBERS  
R. L. METCALF  
D. E. HOWELL  
G. E. BOHART, *Chairman*

## REPORT OF THE EDITORIAL BOARD

### THE THOMAS SAY FOUNDATION

The Editorial Board of the *Thomas Say Foundation* recommends that the Editorial Board for 1958 initiate a search for a suitable manuscript for the next book in the *Thomas Say* series since the Say Foundation account will total in the neighborhood of \$3,000.00 at the end of the 1957 fiscal year.

During the year 1957, no manuscripts have been received by the Editorial Board for publication by the *Thomas Say Foundation*.

Respectfully submitted,  
LOUISE M. RUSSELL  
C. W. SABROSKY  
H. O. DEAY  
L. E. CHADWICK  
K. D. QUARTERMAN, *Chairman*

<sup>1</sup> Punch cards and electronic "memory machines" may answer some of the needs of large organizations. For example, it has been said (don't ask me by whom) that the millions of works in the congressional records could be committed to memory by electronic machines taking only a few feet of floor space. Unfortunately few of us have the means or know-how to own and operate such devices.



## REPORT OF COMMITTEE ON

### INDEX TO THE LITERATURE OF AMERICAN ECONOMIC ENTOMOLOGY

INDEX XV (1955) was published in July, 1957.

INDEX XVI (1956) has a backlog of our to six months of indexing, which must be made up before revising and typing can begin. This backlog resulting from the long illness of Miss Hawes which, unfortunately, ended in her death in March, 1957.

INDEX XVII (1957) also has a considerable, though much smaller, indexing backlog.

Soon after Miss Hawes' death her position in the Library of the Department of Agriculture was filled by the appointment of Mrs. Helene G. Cushman. It would be impossible, however, for Mrs. Cushman working alone to make up the backlogs of INDEXES XVI and XVII as originally planned and at the same time keep abreast of the current literature. Accordingly, it is gratifying to report that the Entomology Research, Pest Control and Plant Quarantine Divisions of the U. S. Department of Agriculture's Research Service are taking steps to make \$5,000 available to the Library for the employment of additional assistance on this indexing project. It is hoped that this will make possible the clearing up of the backlog and the printing early in 1959 of INDEX XVI covering both 1956 and 1957 literature.

Respectfully submitted,

HELENE G. CUSHMAN  
B. A. PORTER  
C. F. W. MUESEBECK, *Chairman*

## REPORT OF THE EDITORIAL BOARD

### ENTOMA

The 12th Edition of ENTOMA was released during the latter part of September. Editor Dr. E. H. Fisher reports that the distribution of this Edition is getting off to a good start and it appears that sales will exceed those of the 11th Edition.

A total net profit to ESA of \$1,264.50 resulting from the sales of the 11th Edition has been transferred to the Society by Dr. Fisher. Approximately 2700 copies of 5000 printed were sold. In view of the distribution of the 11th Edition, only 4000 copies of the 12th Edition were ordered. A sum of \$500. from the income of the 12th Edition has been transferred to the ESA.

The Board wishes to commend Dr. Fisher for his efforts as Editor and Business Manager of ENTOMA. Through much time and energy he has produced a publication which is an excellent tool for use by entomologists and other interested parties. In addition, the publication is a source of income much needed by the ESA.

The Board also wishes to thank the many collaborators who gave much assistance to the Editor in preparing the 12th Edition.

Three members of the *Editorial Board* met with Dr. Fisher during the meeting of the North Central States Branch of ESA in Des Moines.

Respectfully submitted,

J. W. APPLE  
M. P. JONES  
W. C. McDUFFIE  
J. B. STEINWEDEN  
C. C. ALEXANDER, *Chairman*

## REPORTS OF REPRESENTATIVES TO SCIENTIFIC BODIES FOR 1957

### REPORT ON THE JOINT COMMITTEE ON GRASSLAND FARMING

In response to your recent request I submit the following report on the activities of the *Joint Committee on Grassland Farming*, especially emphasizing those aspects that relate to entomology.

The annual executive committee meeting was held in New York City on December 28, 1956. The Society representative was unable to be present at this meeting. One of the highlights at the meeting was a discussion concerning new issues of the committee handbooks on grassland farming. The original issues of these handbooks did not give adequate coverage of grassland insect problems. Of interest to entomologists was a motion, unanimously passed, that "each Cooperating Member Organization to be contacted with a request to assume the responsibility in their organization for collecting and collating pertinent, factual material and information—such final complete reports to be screened, pruned and consolidated into factual information on control of pests, insects, et cetera, recommendations and if necessary, supporting data and/or references. This consolidated information, when edited and put in final form, to be included in *The Grassland-Livestock Handbook* or as a separate publication." No action has resulted from this motion but it is encouraging to note that entomology may have a more important place in future handbooks.

I was able to attend the annual general meeting held in conjunction with the American Phytopathological Society and the American Society of Plant Physiologists at Palo Alto, California, August 29-30, 1957. There was no business session held at this meeting. As is the custom of the committee in their meetings with various affiliated societies, the program was largely devoted to subjects of interest to plant pathologists. Of most interest in our field was a paper on the breeding of alfalfa for disease and insect resistance, which discussed the research to develop an alfalfa resistant to the spotted alfalfa aphid. The importance of disease and pest resistant strains in increasing the longevity of alfalfa stands was also discussed. The second day of the meeting

was devoted to an automobile tour of several farms to observe grassland agriculture in relation to dairying and legume seed production.

An executive committee meeting was held at New York City on October 24, at which plans for the revision of grassland handbooks and for the next general session were discussed. The next general session of the committee will be held with the American Dairy Science Association in Raleigh, North Carolina, June 24-25, 1958.

Respectfully submitted,

B. A. APP  
E. S. A. Representative

### REPORT OF THE REPRESENTATIVE TO THE DIVISION OF BIOLOGY AND AGRICULTURE, NATIONAL RESEARCH COUNCIL

#### *Recommendation:*

The Representative to the Division of Biology and Agriculture, National Research Council, recommends that:

1. A committee of the Entomological Society of America be formed to study problems related to retired entomologists.

#### *Discussion of recommendation:*

1. In recognition of the fact that responsible organizations rather generally are showing concern with problems of aging people, and that in some scientific disciplines there is a shortage of trained personnel, it appears that our Society will be rendering a useful service by gathering information on retired entomologists and the maximum utilization of their capabilities. For two years there have been discussions of retirement problems at the Annual Meetings of the Division of Biology and Agriculture, and in 1957 a special report was presented there of a study made by the American Physiological Society of its retired members. While there is no ready solution to many of the problems which arise concerning

retirement, the following objectives are suggested as appropriate tasks of a committee:

- a. Determine the approximate number of entomologists in the United States retiring from regular profession employment each year, and obtain an estimate of the number with vigor and professional capability and interest who are unproductive as a result of early retirement (i.e., an estimate of the trained manpower supply now being lost by failure to utilize retirees.)
- b. Obtain information on the variation in retirement provisions for long-term employees at representative State and Federal institutions, and in other organizations employing entomologists.
- c. Sample opinions of representative entomologists who have recently retired or who contemplate early retirement.
- d. Consider what can be done to facilitate the professional occupation of entomologists who wish further productive activity following retirement from their regular employment.

*Other items reported:*

The Annual Meeting of the Division was held at the National Academy of Sciences, Washington, D. C., May 3-4, 1957. The next Annual Meeting will occur in May 1958, and ESA members are invited to bring to the attention of their Representative any matters which at that time or otherwise may appropriately come before the Division. My previous report describes the scope of Division activities (Bull. ESA 3: p. 20, 1957).

The Biology Council, of the Division, has now been disbanded through lack of financial support. A very popular publication of the Council, "Career Opportunities in Biology," will soon be reprinted by the Division. The Division has prepared the transcript of a conference on "Concepts in Biology" and a report on "Improving College Biology Teaching," and both await publication. The Chemical-Biological Coordination Center, an activity of the Academy-Research Council, is in the final stages of liquidation, also from want of support. Arrangements are being made for the storage and availability of valuable compilations of data.

The Institute of Laboratory Animal Resources has continued to broaden the scope of its activities, and its function as a clearinghouse for information on laboratory animals continues to increase in importance. A second edition of the "Handbook of Laboratory Animals" is expected to appear soon. A new sub-committee on Animals Procured from Nature has been formed.

At the 1957 Annual Meeting, Milton O. Lee, Chairman of the NSF Postdoctoral Fellowship Committee, reported on the last screening of applications for these fellowships, and he expressed the opinion that the quality of applicants in biology is diminishing.

Respectfully submitted,  
ASHLEY B. GURNEY  
E. S. A. Representative

**REPORT OF THE REPRESENTATIVE  
TO THE  
AGRICULTURAL RESEARCH INSTITUTE,  
NATIONAL RESEARCH COUNCIL**

The annual meeting of the Agricultural Research Institute was held October 14-15, 1957 at the National Academy of Sciences in Washington, D. C.

It is sometimes suggested that the use of agricultural chemicals should be limited or banned and thus provide a remedy for the farm surplus problem. In this connection, at the annual meeting an ARI panel on utilization research denied that too much attention has been given to farm production. It was stated, for instance, that much of the research budget of the U. S. Department of Agriculture relates to new kinds of crops or improvements in present ones. The ARI panel on basic research emphasized how little the public understands the role of scientific research in advancing agriculture to its present level of efficiency.

For the sake of encouraging interest in agricultural research and possibly to fend off some unwarranted criticism of more efficient production methods, the agricultural story should be told. This should be done dramatically, forcefully and convincingly to attract young people to research in agriculture, the country's basic industry.

A proposed international conference on systemic pesticides, originally considered for October 1957, has been cancelled, at least for the present, for lack of support.

Respectfully submitted,  
HAROLD H. SHEPARD  
E. S. A. Representative

**REPORT OF THE REPRESENTATIVES ON THE  
COUNCIL OF THE AMERICAN ASSOCIATION  
FOR THE ADVANCEMENT OF SCIENCE**

The last meeting of the AAAS Council was held December 27-30, 1956, and reported by Dr. H. H. Ross as published in the BULLETIN OF THE ENTOMOLOGICAL SOCIETY OF AMERICA, March 1957, page 21.

Herewith we report actions by the AAAS Board of Directors at their meetings, March 16-17 and July 6, 1957, which may be of interest to the Entomological Society of America.

1. Voted that effective January 1, 1958, *The Scientific Monthly* would be merged with *Science* and that the combined magazine would be sent to all members of the Association and all subscribers to either journal. The combined journal will have the format of *Science*, but that much of the present character of *The Scientific Monthly* will be retained in a special monthly issue of *Science* that will be devoted largely to review articles. Advantages of the merger are that the staff will be able to concentrate on a single journal that will be better than either of its predecessors, that the Association will send the same journal to all members, and that the wasteful duplication of material that must now appear in both will be avoided. The merger had previously been approved by the Council.

2. The Board reported on the poll of Council members regarding dues increase. A substantial majority, 268, replied, of which 234 or 87 per cent voted to increase dues from \$6.50 to \$8.50. The dues increase was approved by the Board, effective January 1, 1958.

3. The Columbia Broadcasting System plans to present by television on Sunday, December 29, 1957, an hour-long program reviewing the highlights of *Science* for the year 1957.

4. In his report for 1956, Herbert H. Ross emphasized the importance of the *Committee on the Social Aspects of Science* and its relation to the activities of the Entomological Society of America. At the last meeting of the Board (July 6) it voted to approve the holding at the 1957 annual meeting of a session on social aspects of science with invited speakers to be arranged by the Committee. The Committee suggested the following list of areas of interest.

- a. Undertake a long-range study of social aspects of science.
- b. Investigate various public attitudes about science.
- c. Explore ways of promoting interpretations of scientific advance for public information.
- d. Make an annual report for submission to the Council.
- e. Propose methods of obtaining increased support for scientific effort.
- f. Continue to deal with specific social problems involving science as they arise. (President Armitage advises, March 20, 1957, that Roy Campbell is chairman of the newly organized Welfare Committee and will study the problem of social aspects of science).

5. Councillors were asked to make nominations for President and Member of Board of Directors of AAAS. Members of ESA were suggested as nominees. It is

believed that because of lack of direct contact by most entomologists with AAAS there is little chance at present for securing the nomination for President of AAAS. Therefore, it is believed we might concentrate our efforts on the election of an entomologist to the Board of Directors in hopes we may gradually develop a prestige to secure the nomination and election of an entomologist to the presidency of the AAAS.

6. October 12 and 13 were designated as the time for the fall meeting of the Board, the last meeting before the annual meeting of the Council and Board at Indianapolis in December.

Respectfully submitted,  
G. H. BRADLEY  
J. J. DAVIS  
E. S. A. Representatives

## REPORTS OF SPECIAL COMMITTEES AND REPRESENTATIVES IN 1957

### REPORT OF THE EXHIBITS COMMITTEE

The 1957 Exhibits Committee recommends that:

1. A *Committee on Exhibits* be made a continuing policy of the Entomological Society of America.
2. The committee consist of five members.  
(The Governing Board accepted the following as suggestions for future guidance.)
3. The members of the committee to be appointed by the President-elect at the time of the annual meeting preceding the meeting at which the committee is to arrange for exhibits.
4. The term of office for the committee members shall be for the first committee, one member appointed for two years and four for one year each. Thereafter each President-elect would appoint one member for two years and three for one year each. By this procedure one member would always be familiar with the work of the previous committee. The member serving the second year would serve as Chairman.
5. Where practical, the member serving for a two year term would be from, or a locality near, the city where the meeting is to be held during the second year of his term.
6. That general policies be prepared as guide to each annual committee; however, that each annual committee would prepare their own additional rules and regulations that may be necessary.
7. General policies would include among others the following:
  - a. A budget be provided out of the general fund for postage and other costs.
  - b. Copies of all correspondence from officers of the Society concerning exhibits will be furnished the committee.
  - c. The committee would be charged with the responsibility of arranging for interesting and informative exhibits. The committee would also be responsible for the employment of commercial decorating firms. The committee would also be responsible for making arrangements for exhibit space.
  - d. All charges for commercial exhibits to be determined by the committee.
  - e. The exhibit committee would have full and final jurisdiction over the suitability of exhibits and could reject any exhibit that would not be suitable.

Respectively submitted,

C. B. PHILIP  
D. L. COLLINS  
D. M. DELONG  
G. G. ROHWER  
HAROLD B. JONES, *Chairman*

### REPORT OF THE COMMITTEE ON PUBLIC RELATIONS

*Committee Recommendations:* (as accepted by the Governing Board)

The committee recommends:

1. That inasmuch as the principal assignment to this committee was that normally assigned to a publicity director, we recommend that the Governing Board approve proposal B presented to the Board at the Los Angeles meeting (1953) by the *Committee on Public Information* (text under Support of Recommendations).

II. That public relations work be continued by:

- (a) The creation of a continuing *Public Relations Committee*, to be assisted by a number of temporary subcommittees, members to be appointed on the basis of demonstrated ability in the public relations work. (Governing Board action. No later than the 1958 annual meeting the Board is to consider combining related special committees under the *Public Relations Committee*.)

*Support of Recommendations:*

1. The Committee on Public Information reporting at Los Angeles was in fact a committee of experts on public relations. Therefore, this committee feels it can do no better than to repeat and endorse their recommendation B, which reads as follows: "B. *Improvement in operations at annual and Branch meetings.* Our meetings offer a public relations device not fully utilized by the profession of entomology. We recommend, therefore, the adoption of the following operational procedures:

"1. Establish a temporary public information officer at each annual or branch meeting of the Society to take over press, radio, TV, and all other informational activities that should be developed at such meetings. Few professional entomologists have informational experience or background; we therefore recommend that the extension editor of the state in which the meeting is being held be requested officially to aid our profession by filling this temporary position. We have obtained federal clearance for extension editors to do this work. This simple procedure will serve the profession in two ways: (1) extension editors are familiar with local information outlets in their own states. They know how to get information originating at such meetings into the hands of the public; (2) extension editors will in this way become more familiar with entomological work and the personalities involved in the study of insects and their control.

"a) To obtain the services of the extension editor within a given state for the purpose noted, a letter should be addressed by the President of the Society, or branch, (prepared by the chairman of the local arrangements committee) to the Director of Extension in the state where the meeting is to be held, requesting that the state extension editor be requested to serve as the press officer for the society on the dates concerned. This letter should indicate willingness of the society to defray costs of travel and expense for the period of service.

"b) Upon obtaining willingness to cooperate from the state extension director, the chairman of the local committee for arrangements should write the state extension editor, giving him full data concerning time and place of the meeting, and the name, address and telephone number of the person to whom he should look for advance information and guidance regarding the meeting. As soon as a program is available, a copy should be forwarded to him without delay. It would be helpful to appoint him a member of the program committee.

"c) A press room must be provided at the convention headquarters during the meeting; in this room should be a table, chairs, typewriters, paper, and pencils for use by the working press. A separate table should be provided for press releases brought in by members for use by the press.



"d) A notice should be issued to the membership and forwarded at the time of request for titles to be presented at the meeting, saying that press releases must be prepared in advance of the meeting date by all persons expecting to appear on the program, and that 25 copies of such press releases should be forwarded by prospective speakers to the Chairman of the local arrangements committee at least 10 days in advance of the meeting date; 1) Entomologists within States will find their own state extension editors willing to prepare such releases for newspaper, radio, and TV use; 2) Entomologists in federal employ are expected to request help in preparing such releases from their Division of Information, or, from the extension editor within the state in which they are presently located.

"e) After the meeting, a letter of appreciation of the state extension editor's efforts signed by the President should be forwarded to (1) the state extension director, and (2) the state extension editor."

Apparently two considerations prevented the Governing Board from adopting recommendation B at the Los Angeles meeting; (a) the unfavorable condition of the budget, and (b) the Board's unwillingness to adopt realistic registration fees.

II. Several members have suggested the creation of a standing Committee on Public Relations. This suggestion is commendable, but the work load imposed is currently too large and too diverse to be handled by any one committee. The immediate problem could be handled in one of two ways:

- (a) Create a permanent standing *Committee on Public Relations* to plan and supervise the development of an over-all public relations program, assisted by a number of committees to consider specific problems, such task forces to be appointed by the president on recommendation of the *Public Relations Committee*.
- (b) Defer creation of a standing committee until the several temporary committees now working in this general field and others that might be appointed for small specific assignments make their survey and reports.

*Narrative Report:* This committee was appointed by President Armitage April 16, 1957 and charged as follows:

"The above special committee is being re-established in the Society partly as a result of member request, but primarily to meet a very definite and growing need. Its purpose is to develop and activate ways of emphasizing to the public the important part entomology plays in our everyday life, to the end that entomology as a science will eventually receive the recognition and research support which it merits.

"This could concern wider publicity covering the time and place of entomological meetings, particularly in the publications of other scientific organizations; better press coverage of Society and Branch meetings; means of attracting a fair percentage of college student enrollment to entomology as a career; or directing attention to the need of diverting a larger amount of available research funds to entomology, than is now the case.

"The last two situations are the subject of consideration by a special committee of AAAS under the title of the *Social Aspects of Science*. This committee has asked that the Society make suggestions by mid-September of this year as to how a larger percentage of available research funds can be diverted to the biological sciences, and how to meet the serious and growing problem of competition between sciences for students. The development of such suggestions or recommendations would be a specific responsibility of this committee.

"Undoubtedly many other avenues of carrying out the purpose of the committee will present themselves. The field is unlimited."

From the very beginning the committee took cognizance of the fact that the President had appointed several other committees dealing with special problems and activities that come under the general heading of public relations: (1) professional training and standards, (2) welfare, (3)

affiliation with the American Institute of Biological Sciences (4) revision of brochure on opportunities in professional entomology, (5) memorial lectures, and (6) hazardous materials. It therefore confined its activities to those clearly set forth in the President's letter of appointment, except as it was called upon to consider a number of proposals presented to it by the President, the Executive Secretary, and members of the Society.

#### Activities:

- (1) In the matter of publicity:

(a) An announcement of meeting dates was sent to all known publications that carry such announcements.

(b) Copies of the program were sent all press agencies and leading magazines as soon as they became available.

(c) Arrangements were made for the *Memphis Commercial Appeal* to carry a feature article on entomology Sunday, December 1, 1957.

(d) Authors of papers, especially those with material that would appeal to the public and the press, are being urged to have their local editors prepare acceptable press releases or provide copies of their papers for use by the press. (Supplement A.)

(e) A member of the committee will be available to assist representatives of the press and radio at all times.

- (2) As requested, the committee reviewed the article, "Social Aspects of Science," *Science*, Vol. 125, 145-147, January, 1957, and after due consideration of comments submitted by eight members of the Governing Board and all committee members, prepared a summary of these comments for submission to the A.A.A.S. (Supplement B.)

(3) Rather voluminous and in part highly controversial correspondence on bird losses was referred to the committee with a suggestion that it, as an impartial party, prepare a statement for release. The committee, feeling that the public would not accept its pronouncements as impartial, chose the alternative of preparing a statement of facts which was supplied to two nationally recognized writers preparing articles on the subject. In all propriety, these writers must remain anonymous.

(4) In response to a request from its secretary, the committee made arrangements for Dr. Dale Newsom to speak to the Memphis Agricultural Club December 2 on the subject of "Insect resistance to chemicals and the future of insect control." (This should get a good press notice.)

(5) A proposal that the committee sponsor a National Insect Control Week (see "Georgia Insect Control Week," *Bull. E.S.A.* 3(3):52) was voted down. While such activities on a local or state level may be highly successful and indeed commendable, the difficulties involved in establishing a National Insect Control Week seemed insurmountable and the fruits thereof not worth the effort.

(6) Proposals for (1) establishing a national speakers' bureau with appropriate brochures and publicity; (2) the preparation of education slide sets; and (3) the preparation of a rather elaborate brochure on professional entomology and its contributions to the American way of life were given sympathetic consideration but vetoed for the time being as inconsistent with the current financial status of the Society. Since no single small committee can adequately consider all such proposals, these and similar proposals should be referred as individual problems to small temporary committees of specialists as suggested in Recommendation 4.

(7) Many of our members complain that entomology is not adequately recognized by the AAAS, AIBS, NRC, and other scientific bodies, but it seems probable our own lack of cooperation with these organizations may be responsible. It is reasonable to assume that so long as we remain aloof and largely unknown to the leaders in these organizations we cannot expect them to seek us out for singular recognition. Therefore, greater cooperation with scientists in other disciplines, individu-

ally and collectively, is essential to the solution of this problem.

(8) The committee strongly endorses the work of a newly appointed *Committee on Losses Caused by Insects*. We believe the collection, summarization, and dissemination of concrete, documentable data on the extent of insect losses and the value of insect control measures is essential to the popularization of entomology and the development of an effective information or public relations program. Here again, this work cannot be accomplished by a small committee working alone, but must have the active support of all members. If our members want to give more than lip service to the development of a good public relations program, they must respond wholeheartedly and generously to any and all appeals for aid from this committee. A strongly worded resolution on this subject would seem appropriate.

(9) Your committee unanimously agrees that effective public relations is the responsibility of each and every individual member of the Society that should be pursued 365 days a year. Full responsibility for favorable publicity cannot be relegated to a committee or publicity director. The committee received several suggestions that it should prepare articles publicizing this or advocating that, but it seems amply clear that such canned articles are not readily accepted by the press. Much more has been and can be accomplished when our members accept their individual responsibility for the preparation and dissemination of favorable publicity on problems of local interest and color which are more readily accepted by the press.

Respectfully submitted,

PAUL A. DAHM

DAVID G. HALL

GEORGE KNOWLTON

L. C. MURPHEE

GEORGE C. DECKER, *Chairman*

#### *Supplement A.*

ENTOMOLOGICAL SOCIETY OF AMERICA

1530 P STREET, N. W. WASHINGTON 5, D. C.

OFFICE OF THE EXECUTIVE SECRETARY November 2, 1957

Authors of Submitted Papers

Fifth Annual Meeting

Entomological Society of America

Gentlemen:

We are attempting to improve publicity on papers presented at our annual meeting in Memphis, Tennessee over that previously obtained.

It would be very much appreciated if you could furnish 10 copies of your manuscript, or manuscripts, which you have prepared for presentation at Memphis, or 10 copies of any press releases prepared from your material by your agency or publicity office.

Please send this material one week in advance of the Memphis meeting of December 2-5, 1957 to the following:

R. H. Nelson (Hold for Arrival)  
Executive Secretary  
Entomological Society of America  
Hotel Peabody  
Memphis, Tennessee

Very truly yours,

R. H. NELSON  
Executive Secretary

#### *Supplement B.*

COMMENTS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA'S  
PUBLIC RELATIONS COMMITTEE  
ON PROCUREMENT OF FUNDS AND RECRUITMENT OF  
STUDENTS FOR BIOLOGICAL SCIENCES

*Procurement of Funds.* There seems to be substantial agreement that research in the biological sciences is inadequately financed, and that there is a particularly urgent

need for additional funds to support basic research. However, one finds different interpretations of statistics bearing upon the distribution of research funds and the urgency of the need for increased support of research in the biological sciences. While some individual apparently accepted at face value the information presented in "Social Aspects of Science," *Science*, January 25, 1957, others felt that presentation was misleading. Many pointed out that sizable funds, apparently considered as spent for research in chemistry and physics, were actually used to finance research in one or more of the many biological fields. A review of research grants by the National Science Foundation, the Department of Defense, the National Institutes of Health, the United States Department of Agriculture, the Atomic Energy Commission, and private foundations seems to indicate that sizable funds from many sources have been made available to biologists. Likewise, the agricultural chemicals industry, through direct expenditures, contracts, and grants in aid, is spending millions of dollars annually on basic and applied research in the general fields of biology and agriculture.

Sales of products and ideas alike are based largely upon their tangible values, economic or otherwise, which can be clearly demonstrated and attractively presented to those whom the seller wishes to influence. Thus it appears biologists have failed, in part, at least, to summarize properly and adequately disseminate in readily understandable terms the direct and indirect fruits and benefits of biological research. It is possible that too many biologists still abhor any association of science with economic values and speak only in idealistic terms of intangible values not readily understood by either the public or fund-appropriating legislative bodies and therefore not accepted as justification for the expenditure of large sums of money.

Most of our correspondents were more or less agreed that any large increase in funds for biological research, e.g. doubling or trebling those now available, would be dependent upon the development and exploitation of a sound public relations program which would effectively "sell" the biological sciences. Furthermore, such a program must have the active support of a large proportion of all biological scientists and cannot be relegated to a committee. They also agreed that effective public relations should be pursued 365 days a year.

There was, however, a general feeling that sizable increases in research funds might be made available in several ways. Most of the fund-granting agencies still have funds available to support worthy projects of competent scientists if and when such projects are properly outlined and effectively presented to the appropriate body. Dr. R. E. Cleland's handling of the project for "The Preservation of Indigenous Strains of Maize," financed by the Rockefeller Foundation under the auspices of the National Research Council, is an excellent example of what can be accomplished in this direction. There are many who, having observed the operation of the National Institutes of Health, feel that biologists should unite in advocating, sponsoring, and selling the idea of a National Institute of Biology and Agriculture. Some feel reasonably confident the Congress would be receptive to such a proposal.

*Recruitment of Students.* A successful public relations program appears to be an inevitable prerequisite to the development of a satisfactory program for the recruitment of biological science students. May feel that biologists must substantially increase and strengthen the position of biology in the minds of the general public before they can hope to compete successfully for students with the other arts and sciences. Some suggest that this may be attained by establishing professional standards; others suggest revision of job descriptions in state and federal agencies; and still others suggest the re-establishment of the discarded professional grades in federal civil service. There is general condemnation of the prevailing policies which often limit the salaries of outstanding scientists to figures substantially below salaries paid administrative personnel with little or no training or experience in any branch of science. Who can blame parents and friends for

guiding youngsters away from biology, so long as biologists are predestined to remain the subordinates, if not, indeed, the serfs, of aggressive office boys?

Brochures on job opportunities and thought-provoking news stories and magazine articles written by competent biologists are advocated by many, but others feel their value is overestimated because all too often they reach the hands of the prospect too late, if at all. Thus, they fit the "too little, too late" category.

Parents, friends, and counselors have much to do with directing the destinies of children. Currently many potential scientists are lost at or prior to the junior high or high school level because they have no opportunity to preview the several branches of sciences before their attention is directed to trades, the mechanical arts, or one of the better known professions such as law or medicine. Many others are lost between high school and college because their parents and others discourage vocations in science or religion and advocate a career in business or some other field offering greater financial potentialities.

Since the vocational guidance personnel of our public school system reach a large number of students at an early date, they have a profound influence in determining the ultimate destiny of students. Therefore, perhaps greater attention should be devoted to a study of the manner of selection and the qualifications of such personnel, at least insofar as their abilities to detect or stimulate interest and adequately guide the development of potential biologists is concerned. There seems to be a very strong feeling that too many counselors erroneously assume an attitude of infallibility and initiate programs of specialization at the junior and senior high school levels without ever giving the students an opportunity to become acquainted with some fields which might appeal to them. Some counselors at the high school level arbitrarily set up and recommend, if not insist on, a curriculum for a student which excludes entire fields of study, thereby making it impossible for the student to find a latent natural inclination or ability in such fields. Counselors would perform a very great service to the student by helping him to keep all avenues open through a diversified course of study which would ultimately give him the widest possible choice in deciding upon a field of specialization in his advanced education.

Historically, leaders in politics and religion have fought for possession of the minds of children on the assumption that whoever controls the minds of little children directs the course of their development and their destiny. Thus, it seems to follow logically that if science is to be successful in its recruitment program it, too, must make itself known to and become a part of the lives of children at a comparatively early age. Those who advocate improving our relationship with and participation in such activities as Boy Scouts, Girl Scouts, 4-H, FFA, and science clubs should not be ignored. Science might do well to watch closely the activities of Dr. Phoebe Hall Knipling (Mrs. E. F. Knipling) and her pioneer work in popularizing science in the Arlington, Va., school system.

Almost without exception correspondents advocated higher salaries and materially strengthened requirements for science teachers at the junior high and high school level.

Most correspondents deplored the all too common practice of assigning weak and indifferent instructors to teach the elementary college courses in biology. Many a student with at least a speculative interest in biology has been lost forever to science through the incompetence of the instructor in his first course in botany or zoology. On the other hand, literally hundreds of our contemporaries owe the discovery of their vocation to such distinguished teachers as J. H. Comstock of Cornell, Herbert Osborn of Ohio State Univ., R. W. Harned of Mississippi State College, Walter H. Wellhouse of Iowa State College, and H. E. Jacques of Iowa Wesleyan College. Educators must realize that the vocations of students are determined to a large extent by their first instructors or professors. The dignity of the position and the contribution to science of the qualified teacher of elementary courses should be considered on a par with, if not superior to, that of the re-

search genius devoid of all personality and ability to influence beginning students. Those who are convinced of the above facts should strive continually to improve the salaries and recognize the professional status of distinguished teachers.

In the arbitrary rating of colleges and universities it is possible that too much attention is paid to the prestige of outstanding graduate schools and their distinguished faculties, without adequate regard for the fact that much of their raw material is discovered and quite highly refined in smaller, liberal arts colleges.

Biologists generally might profit in many ways by employing interested and promising high school or undergraduate college students as summer assistants. Perhaps more entomologists have found their eventual vocation through this avenue than any other, and some go so far as to say all others combined.

Some deplore so-called competition for students, but others hold that competition is objectionable only insofar as actual proselyting or undue pressures are involved. This latter group contend that a strong, forceful presentation of the merits and opportunities in all branches of science is advantageous and highly desirable, in that such a course would attract a greater number of students to science and enable them to more effectively find the field best fitted to their deepest interest and basic aptitudes.

Significant comments of three of our members bearing on the general subject of this report appeared in the August, 1957, number of National Agricultural Chemical News.

#### REPORT OF THE SPECIAL COMMITTEE ON WELFARE OF ENTOMOLOGY

The Committee recommends that:

1. The Committee be extended for one year. (Governing Board agreed)
2. Consideration be given to combining the two special committees on Welfare and Public Relations into one standing committee with a rotating membership of six. The reasons for our recommendations are as follows:

(1) Copies of the resolution of the Society on the re-establishment of Professional Status in the Federal Services passed at the New York meeting were sent by Secretary Nelson to the U. S. Civil Service Commission, and to the chairman of the Senate and House Committees on Post Office and Civil Service. Replies received indicate that these committees will give consideration to our request but to date no action has been taken. The executive committee of the Organization of Professional Employees of the U. S. Department of Agriculture decided to take no action on this matter.

The matter of appropriations for mosquito research and control was discussed by the Governing Board and a resolution was passed favoring the enactment of legislation which would authorize an equitable division of funds between the Federal agencies concerned with the several phases of mosquito problems to be investigated. The Board also recommended that the Federal agencies explore the possibility of interdepartment liaison by a formal committee on mosquito research and control, with the object of determining which agency should be responsible for the conduct of mosquito research, demonstration and control.

Since these matters are still pending, the work of this committee should be continued in order to follow them up.

(2) The welfare of entomology and entomologists is closely related to and affected by our public relations, and it seems logical that all such matters should be handled by one committee on Welfare and



Public Relations, which should be of a permanent nature.

Respectfully submitted,

J. R. DOUGLASS  
D. R. JOHNSON  
R. H. NAGEL  
GEORGE T. YORK  
ROY E. CAMPBELL, *Chairman*

## REPORT OF THE EDITORIAL POLICY AND PROCEDURES COMMITTEE

### Recommendations:

1. The Entomological Society of America continue the publication of the ANNALS, the JOURNAL, and the BULLETIN, substantially as is the present policy.
2. A new MISCELLANEOUS PUBLICATION IN ENTOMOLOGY\* be established, to be published on an irregular basis as dictated by demand. That in order to establish this new publication series and to procure, through solicitation if necessary, suitable manuscripts for the first year of publication; a temporary committee be appointed by the Governing Board to assist the Executive Secretary in getting this new venture underway (this committee to be disbanded as soon as the project is on a sound footing under a properly constituted editorial board.)
3. A paid managing editor be appointed to supervise the publications ANNALS, JOURNAL and MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY.
4. The JOURNAL, ANNALS, and MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY should each have an editor and an editorial board, these to be appointed by the Governing Board of the Society; and these to have the final authority to review each manuscript submitted for publication, to require revisions necessary to make it suitable for publication, or to reject it if it does not conform to Society standards. That the referee system of manuscript approval be instituted by the Society for the accomplishment of suitably critical reviews of all manuscripts submitted for publication.
5. Publication rights in the publications of the Entomological Society of America should be extended to all qualified authors upon endorsement and communication of a member of the Society.

### Justifications for Recommendations:

1A. The sponsorship of scientific publications of a high degree of professional standing is one of the chief functions of a scientific society and is clearly an obligation of any group concerned with the "promotion of the science of entomology." This function is admirably stated in the Constitution of the Society, "It shall be the purpose of this Society to promote the science of entomology in all its branches, to assure cooperation in all measures tending to that end, and to publish the ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA, the JOURNAL OF ECONOMIC ENTOMOLOGY and other entomological publications."

Both the JOURNAL OF ECONOMIC ENTOMOLOGY and the ANNALS since 1908 have carried out this function and have become highly respected and cherished periodicals devoted to entomological research. It is the firm opinion of this committee that these journals must be continued essentially as presently constituted, subject to the other recommendations of this committee. Every effort should be made to enhance their present standards of excellence. A current problem is the continued expense of publishing the ANNALS which with sales of about 1600 copies per issue in 1956 is operating at a deficit of approximately \$8000 per annum. This is to be compared with the JOURNAL with sales of about 4900 copies per issue and a profit of about \$9500 per year. It is clear that this deficit in the publication of the ANNALS can most logically be eliminated by extending the subscription list and increasing the sale of advertisements.

\*This is only a tentative title for the new publication.

In the committee's opinion a material increase in the sale of the ANNALS subscriptions could be brought about by more judicious selection of material to be published, so that the journal has wider sale appeal both to members of the Society and especially to libraries and commercial organizations. It is believed that this could be accomplished by placing in a new publication series, MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY, all fundamental papers of 20 printed pages or more in length which currently appear in the ANNALS (see Section 2A), and that all submitted papers of lesser length dealing with fundamental insect studies be arbitrarily assigned to the ANNALS (see Section 3A). It is also suggested that the Editor and Editorial Board of the ANNALS should give considerably more scrutiny to the reduction in length of papers submitted for publication, by such devices as reduction or elimination of tables, reduction of citation of records of distribution, collection date, etc. of material in taxonomic and biological publications, and elimination of quoted descriptions from and extensive literature reviews of previous authors. The net result of these changes would be to enhance the value of the ANNALS to a much wider segment of the Society and consequently to materially increase the subscription list.

2A. Presently the Society is unable to accept for free publication certain valuable papers dealing with aspects of fundamental entomology which are of immediate interest to a very limited circle of readers and which are longer than the present size limit of 20 printed pages. Such papers are most generally taxonomic studies, (but lengthy ecological, physiological, morphological, and biological papers are also included in this category) of vital importance to the profession of entomology. Additionally, a number of long papers currently appearing in the ANNALS are of this general nature. The committee believes that manuscripts of this type should be accommodated in a new Society publication to be termed the MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY. This publication would be patterned after the Bulletin of the British Museum (Natural History) and the publication series of the Biological Society of Washington. Careful investigation by the committee has indicated that by starting this venture on a modest scale, aiming at 200 pages per annum which would accommodate as many as 8 contributions, the financial cost would be between \$4000 and \$5000 per year for 2000 copies. The publications would be printed by the hot-type offset method, and would have continuous annual pagination, but individual numbers would be issued whenever printing was completed. Reprints would be limited to 100 copies (in order not to affect the sale of individual numbers) and would be priced as to secure a small profit for the Society.

It is estimated that this publication should be priced at \$10.00 per volume to non-members and \$6.00 to members. Although approximately \$5000 would be required to initiate this venture, it would seem that if 300 nonmembers and 300 member subscriptions were obtained, the publication would rapidly become self-supporting. Expansion to an optimum of about 500 pages annually, would then be conditional upon the availability of manuscripts and funds from subscriptions.

The committee believes that the problem of securing suitable manuscripts will be of considerable importance during the first several years and that contributions with special sales appeal might well be solicited initially.

3A. The committee considers it inevitable that with continued growth, the Society will need the services of a paid managing editor to supervise all of its publications. The most appropriate time to implement this progressive step would appear to be concurrent with the establishment of the new MISCELLANEOUS PUBLICATIONS IN ENTOMOLOGY. It is noteworthy that nearly all the larger professional societies such as the American Medical Association, and the American Chemical Society have this form of permanent and high caliber editorship, and most of the smaller organizations are following

suit. For example, the American Society of Agronomy with a membership of 2696 as against 4052 for the E. S. A. employs three editors at a total cost of \$22,000. In connection with this it should also be noted that the burden of editorship has grown to the point where it is difficult to persuade any qualified individuals to assume these duties on a *gratis* basis.

This committee visualizes that such a managing editor would function to determine the disposition of manuscripts submitted for publication in the organs of the Society. Certain arbitrary rules should govern this procedure: (a) all fundamental papers over 20 printed pages, to MISCELLANEOUS PUBLICATIONS, (b) all other fundamental papers in the fields of taxonomy, biology, ecology, morphology, physiology, biochemistry, and toxicology, to ANNALS; with the exception of certain papers which contain new records or descriptions of new species etc., but represent only a step toward a complete and comprehensive taxonomic revision or synopses, which should be published in the MISCELLANEOUS PUBLICATIONS, (c) the JOURNAL OF ECONOMIC ENTOMOLOGY should be exactly what its name implies, a Journal of Applied Entomology, and (d) the BULLETIN should receive any suitable articles of general interest, i.e., Presidential Addresses of non-technical nature, Editorials, reviews, etc. (Although such selection may sound arbitrary it is standard practice with the American Chemical Society journals and is clearly essential to the proper balance and development of our Society publications.) The managing editor would then forward the manuscript to the editor of the publication concerned for approval by his editorial board.

The managing editor would determine in consultation with the various editors and editorial boards, appropriate uniformities in style, abbreviations, etc. which would enhance the utility and appearance of Society publications.

The managing editor would cooperate with the Business Manager in promoting advertising and circulation of the Society publications, and sale of reprints.

The committee does not believe that a consideration of the financial aspects of paid editorship falls within its duties. However, it wishes to point out that President Armitage has estimated that a highly qualified editor and staff should be budgeted at \$16,000 per annum. Affiliation with the American Institute of Biological Sciences also offers some attractive possibilities in supplying material economies in editorial and printing procedures, and these should be thoroughly investigated.

4A. This point scarcely needs amplification as it is a continuation of the present policy which seems to be working well. It is considered that all manuscripts to be published in the JOURNAL, ANNALS, and MISCELLANEOUS PUBLICATIONS must meet certain standards of style and context, if we are to maintain the high professional qualities of our journals. This can best be enforced by the referee system by which each manuscript is submitted to one or two authorities in the particular field concerned for critical review. (Such a system has been brought to a high degree of perfection by the American Chemical Society and has resulted in their publications having enormous prestige and distinction.) See Section 2A for specific editorial practices recommended by this committee.

5A. The members of this committee believe that the publications of the Society should present the best possible research information available to their readers, and that this can only be accomplished by permitting publications in the Society publications without regard to membership in the Society. This action will be instrumental in attracting outstanding papers in fundamental entomology which are presently published elsewhere and appears to be the most feasible way of increasing the circulation of the ANNALS. (See Section 2A.) Such action and the actual solicitation of papers from well-known authors would seem to be most important if we are to build up the quality of the ANNALS in the face of

competition with such publications as the new Journal of Insect Physiology, now published in England.

It is noteworthy that most large professional organizations permit unrestricted publication in their journals provided the contribution meets their editorial standards. This is true of the American Medical Association and American Chemical Society, the Federation of American Societies for Experimental Biology, etc. In some instances endorsement and communication by a member of the Society concerned is a prerequisite and the committee recommends this procedure as a means of regulating the quality of the submissions. This free publication policy has already been recommended to the members of this committee by a number of thoughtful members of this Society.

Respectfully submitted,  
PAUL W. OMAN  
K. L. KNIGHT  
C. P. CLAUSEN  
R. L. METCALF, *Chairman*

(Governing Board action on the foregoing. Report accepted. Under recommendation 3 the Board approves contingent upon funds being available. Additional publications of the Entomological Society of America are to be at the discretion of the Executive Secretary.)

### REPORT OF THE COMMITTEE ON SOCIETY MEMBERSHIP IN THE A.I.B.S.

The Committee recommends as follows:

1. That the Entomological Society of America apply for full membership in the American Institute of Biological Sciences.
2. That the Society pay membership dues to the Institute at the preferred rate of one dollar per year per individual active member rather than at the permissible minimum total of \$1000 per annum.
3. That the Society increase its annual dues to its active members by an amount (\$1.00) sufficient to defray the full costs of Society membership in the Institute.
4. That the Governing Board of the Society seek approval of its support of the above recommendations through a vote of the entire membership of the Society.
5. That the Governing Board accept this report as evidence that this special committee has served its purpose and should, therefore, be disbanded.

The following explanations are offered in support of these recommendations:

#### Recommendation 1

The American Institute of Biological Sciences is attempting to do for biology and biologists what the American Institute of Physics, the American Chemical Society, and the American Mathematical Society have already done for the other major sciences and their adherents: To create one national body to speak authoritatively for the group as a whole that it might receive suitable recognition and support and thus be enabled to discharge better its important public and professional responsibilities to the nation and to mankind generally. Surely this is a sound objective and worthy of the vigorous support of entomologists! As stated in the revised constitution:

"The purposes of the Institute shall be the advancement of the biological, medical, and agricultural sciences and their applications to human welfare. To serve these purposes, the Institute will, among other things, assist societies, other organizations and biologists in general in such matters of common concern as can be dealt with most effectively by united action; cooperate with local, national, and international organizations concerned with the biological sciences; promote unity and effectiveness of effort among all those who are devoting themselves to the biological sciences and their applications by research, by teaching, or by study; and foster the relations of the biological sciences to other sciences, to the arts and industries, and to the public good."

Although the Institute still lacks the active participation of all biological organizations, it has nevertheless made remarkable progress since it was formed in 1948. Today the AIBS represents fully some 17000 American

biologists who are the members of its 21 member societies and it represents to a lesser degree an additional 38,000 biologists who are members of its 17 affiliate societies. Accordingly it speaks, in part at least, for 38 of the 60 (approximate figure) national biological societies and for roughly 55,000 of the estimated 70,000 biologists in the United States. The significance of this growing representation and of the impressive quality of AIBS leadership is clearly reflected in the strong financial support contributed to the Institute by outside agencies, an amount currently approaching 20 times the total provided in annual dues by the constituent societies. Thus every dollar contributed by biologists themselves is bringing an additional 19 dollars in support of biological work in general.

The Institute appears to be in sound financial condition with an assured budget for 1958 in excess of \$300,000 (about double that for 1957) and anticipated additional support that is likely to bring the total to approximately \$500,000. These funds are used for worthy activities such as:

- (1) Planning, conducting, and publishing of the results of *special biological conferences and symposia*, e.g., Molecular Structure and Biological Specificity, Scientific Editing, Biological Bases of Aging, Undergraduate Curriculum for Biologists.
- (2) Provision of *travel grants* for attendance of biologists at international meetings, e.g., 40 grants for the International Genetics Symposia, 40 for the International Conference in Enzyme Chemistry.
- (3) Provision of *advisory committee services* to federal fund-granting agencies: National Science Foundation (Systematic Biology, Environmental Biology), Office of Naval Research (Biochemistry, General Biology, Physiology, Hydrobiology), Atomic Energy Commission (Biology).
- (4) Preparation of a *national directory of biologists*, a list compiled from the Register of Scientific and Technical Personnel through arrangements with NSF.
- (5) Publication of *English translations of four Russian language biology journals* for distribution at a reasonable subscription rate. A sub-committee is preparing a list of other articles for future translation.
- (6) Arranging a *program of visiting lecturers* to enable small colleges and remote universities to benefit from visits of outstanding biologists.
- (7) Assisting in the *arrangement of meetings* of regional, national, or international scope. This includes aid in organizing, in handling of funds, and in procurement of grants for special purposes, e.g., grants in support of two meetings of a special committee established by the Botanical Society of America to cooperate with Canadian biologists in planning the IX International Botanical Congress.
- (8) Provision of *office and business services* at reduced rates to member societies, e.g., addressograph and mailing services, legal counsel, auditing and accounting services. In 1958 steps are to be taken to establish a central agency for the handling of manuscripts for publication on behalf of member societies. This will likely begin simply with copy editing and transmittal of manuscripts to the printer, but consideration will also be given to the feasibility of handling printing costs, reprints, subscriptions, and advertising, all matters of definite interest to ESA.
- (9) Provision of a *comprehensive placement service* for biologists seeking employment.
- (10) Procurement of low-cost 10-year-term *life insurance* coverage for younger members of constituent societies.
- (11) Publication of the excellent *AIBS Bulletin* (5 times yearly), which is provided free to members, and of the *Quarterly Review of Biology*, an important scientific periodical recently acquired by the Institute and made available to members at a reduced rate.

The annual meeting of AIBS is usually held in the summer on the campus of a large university. This provides an excellent opportunity for joint sessions; and the use of university dormitories and cafeterias permits attendance at minimum cost to individuals. This time of meeting

does not fit established ESA practice, but it should be possible for the Society or some of its branches to meet periodically at this time and so reap these advantages. In the matter of meetings, as with all other Institute activities, there is nothing mandatory or binding on the societies; by joining, the societies simply put themselves in a position to participate to whatever extent they wish.

It should also be noted that AIBS operates as a federation of societies, not as a society itself, and its aims include the welfare and interests of its member groups. The Institute, therefore, does not undertake or sponsor activities that will weaken the societies as entities. Instead, upon request it assists member societies to become stronger through helping them in undertakings of special interest to themselves. In the opinion of the Committee, the Institute has amply demonstrated its capacity to preserve the integrity of its member societies while contributing to the welfare of biology in general.

Scientific events of great significance are occurring with unprecedented frequency throughout the world today. The physical sciences are in the forefront with the development of new sources of power and new means of probing the secrets of outer space. But the biological implications are obvious. Biology and biologists must be organized to meet any eventuality bearing on the welfare of mankind. Personal interests and ambitions should recede before these broader considerations. Accordingly, your Committee feels that in assessing the question before us we should center our thoughts on the Society and the Institute as entities rather than on the individuals that comprise them, in spite of the unquestioned importance of the latter.

Membership in the American Institute of Biological Sciences could confer important benefits on American entomology and entomologists, such as additional symposia of special interest and improved representation at world conferences. Likewise, it offers important potential advantages to the actual operation of our Society, such as possible means of solving the growing problems of office and business management. Important as these and many other features are, the Committee feels that the *principal reason for the ESA joining the AIBS is to secure the privilege of participating in a national effort in the interests of the whole science of biology and on behalf of all biologists*. Such participation is made possible only through representation on the Governing Board of AIBS and such representation is accorded only to member societies. Affiliation, instead of full membership in the Institute, would not achieve this end and, therefore, is not recommended. Furthermore, the Committee is opposed to affiliation, even as an interim step, on the grounds that without a voice on the Institute's Governing Board we would be unable to accumulate experience that would be useful in guiding our membership to a better decision than can be made at present. The question of permanent participation in AIBS can only be answered after a suitable trial period as a full member society. To become a member does not jeopardize the future independence of our Society for withdrawal from membership is permissible after one year's notice in writing. For these reasons, we feel we must face up to the basic question: Do entomologists wish to be identified with, and take an active part in, a national biological organization? In the opinion of the Committee, a negative answer would be detrimental to the best interests of the life sciences, including entomology, in this country.

#### Recommendation 2

In spite of the demonstrated ability of the AIBS to obtain financial support from outside sources, the funds received directly from member societies are essential for the maintenance of a permanent central office. Membership dues not only provide a significant measure of financial stability to the Institute, but also bring immediate returns to individual members who receive the AIBS Bulletin and other privileges. The Bulletin alone costs non-members more than the proposed dues of one dollar per person. Although no objection would be raised by the Institute, we are agreed that the Society, with a membership of approximately 4,000, would hardly be justified in seeking full participation in Institute affairs for the per-



missible minimum of \$1000, a sum that falls short by several thousands of dollars of the actual costs that would be assumed by the AIBS on our behalf.

#### *Recommendation 3*

If the Society decides to apply for membership in the AIBS, the Committee feels that the individual active members should support the action through direct assessment to the extent of the full costs involved. The cost per individual (\$1.00) is modest and it is our opinion that personal support to this extent would be preferred by members who are ready to participate effectively in the building of a national biological institute. A society with indifferent members is not likely to pull its weight in important circumstances and we are not in favour of half-hearted cooperation. Moreover, the Society would likely be unable, without some increase in annual dues, to finance membership in the Institute at the level proposed and we question that an increase of less than a dollar would be proportionately more palatable to the membership.

#### *Recommendation 4*

The importance of an approving membership and of individual financial support have already been covered. An adequate assessment of these vital factors can be gained only by submitting the question to a vote of the entire membership. The issue should be clearly and fully presented so that members would know in advance that a favourable majority response would result not only in an application for membership in AIBS but also in a corresponding increase in annual dues. A decision to join the Institute would be an empty act without the full knowledge and consent of a supporting membership. Furthermore, the decision will affect the future of biology and biologists and this is every member's business.

Respectfully submitted,

F. L. CAMPBELL

G. F. FERRIS

R. HUTSON

C. E. PALM

R. GLEN, *Chairman*

(Governing Board action on the foregoing. Report accepted. Membership in A.I.B.S. subject to mail vote of the membership during 1958.)

### **REPORT OF THE COMMITTEE ON MEMORIAL LECTURES**

*The Memorial Lecture Committee recommends:*

1. That an Annual Memorial Lecture be established by the Society.
2. That the lecture honor the memory of L. O. Howard and be known as the "L. O. Howard Memorial Lecture."
3. That the lecturer be chosen from the membership by an award committee.
4. That the lecturer be chosen, preferably for an outstanding contribution made within the past 5 years by a younger member, but if no one is suitably available for the year, that some other outstanding member be honored.
5. That the selection of a lecturer be made by a standing award committee of our members appointed by the President with the immediate Past President serving as a fifth member and chairman.
6. That the lecturer be awarded a modest honorarium and a commemorative medal.
7. That, until a sponsor of the Lecture can be obtained, the Governing Board determine the amount of the Honorarium to be paid by the Society.
8. That the permanent committee determine the design and wording of the award medal which is to be paid for by the Society.
9. That an annual award is not mandatory if, in the opinion of the Award Committee, no suitable candidate is available for a given year.
10. That the lecture be given at a time of the Annual Meeting selected by the Program Committee.

#### *Discussion:*

1. All members of the Committee are agreed that a Memorial Lecture should be given at the annual meetings.

2. The Committee believes the Lecture should honor the name of L. O. Howard who was a charter member, is best known internationally, and whose long years of service in the Bureau at Washington and as Secretary of the A.A.A.S. and eventually its President made him one of our most outstanding members.

3. No comment.

4. The Committee feels that the selection of a younger member for an outstanding contribution would serve as a stimulus to others. If no one is available, the Committee feels that the award should be made to an older entomologist for his past contributions to the field of entomology and to the Society.

5. With the Immediate Past President serving as Chairman of the Awards Committee, we would have a chairman who will have had recent contact within the various branches of the Society. Also, knowing in advance that he will head the committee he can make inquiries ahead of time as to suitable recipients.

6. Industry, as far as entomology is concerned, is already tapped heavily in various ways. It is the feeling of the committee that if we initially establish a respected Lecture that will prove meritorious and an outstanding event in the Society, we might be able to sell the idea to a sponsor such as that of the B. K. Ashford award in Tropical Medicine which is sponsored by the Eli Lilly Co. Recognition of the sponsor would appear on the Society's program of the Annual meeting.

7. The amount of the Honorarium should depend on the Society's financial status. Other societies give from \$500.00 to \$1,000.00.

8. The die for the medal, as well as unawarded medals which have been cast shall be held in the possession of the Secretary of the Society.

9. No comment.

10. Since the programs are always crowded, the Program Committee should have freedom to choose the time of the presentation of the Lecture. There are several times possible such as before or after the Presidential address, at the last Business Meeting, or a separate day or night session.

Respectfully submitted,

C. C. COMPTON

C. K. DORSEY

E. G. LINSLEY

C. B. PHILIP

W. P. HAYES, *Chairman*

(Governing Board action on the foregoing. Report accepted in principal. Incoming President was authorized to appoint a *Memorial Lectures Committee* which is to be continued by future Presidents until the matter is resolved. The 1958 committee is to include at least one member of the Program Committee and one of the 1957 *Memorial Lectures Committee*. An expenditure of \$100.00 was authorized.)

### **REPORT OF THE COMMITTEE ON HAZARDOUS MATERIALS**

*The Committee recommends that:*

1. The Entomological Society of America (ESA) approach the National Agricultural Chemicals Association (NACA) and encourage it to:
  - a. Sponsor the preparation of a film by industry that emphasizes the safety measures which should be employed in handling hazardous pesticides, such film to be widely shown before farm and pesticide applicator and appropriate school groups.
  - b. Sponsor the inclusion by industry of appropriate "safety plugs" in their press, radio, TV and movie house advertisements.
  - c. Initiate among its affiliates a study of designs for pesticide labels, to include such points as multicolor print, overprint, "catch phrasing", etc., which will cause them to be more widely read and their directions followed by users.
  - d. (See item 2 below).
2. The ESA approach the American Medical Association (AMA) and encourage it to co-sponsor with the

NACA the preparation of a film on recognition and treatment of poison victims to be shown before all medical associations and in medical schools.

#### Comments on the Specific Recommendations

1a. The moving picture with sound has proven an effective educational and instructional tool. The number of illnesses and deaths within the past few years which are directly attributable to careless handling of pesticides is ample evidence that printed precautions and instructions as now used have proven inadequate for the protection of users from hazardous pesticides. The proposed film should emphasize the fact that hazardous pesticides can be safely used. It should demonstrate both safe and hazardous handling techniques, emphasizing precautionary measures for the various categories of chemicals. The proper disposal of used containers should be covered. It should point up the importance of self-aid and first aid for different types of poisons, the significance and importance of blood counts, the cumulative nature of poisons and the time required for rebuilding blood or other recovery therapy. Narration for a limited number of prints should be in Spanish for use in the Southwest, and in other foreign languages as may be appropriate.

The film should be prepared in sufficient numbers to give extensive coverage of high school science and vocational agriculture classes and farm and applicator groups. A special effort should be made, through vocational agriculture teachers and county agents, to reach farm laborers.

1b. "Safety plugs" in commercial advertisements, regardless of the media, would keep the public safety conscious.

1c. Over the years a great deal of time, thought and money have gone into label design. However, it seems reasonable to assume that something of real value in protecting the public from the hazards of pesticides remains to be discovered in label design.

It is understood, although not confirmed by the committee, that a division of the United Nations Organization has had under consideration for some time the problem of world wide standardization of hazardous chemicals labels. Any action on this recommendation should be coordinated with the appropriate UN agency.

2. Experience in the past few years has demonstrated that medical practitioners generally are not abreast of the techniques for diagnosing and treating poison victims. A technical film on poison therapy may save many lives.

#### General Statement

Manufacturer's instructions for the safe handling of hazardous pesticides are generally recognized as being explicit and complete. They have proven quite satisfactory in manufacturer's and formulator's establishments. They also have proven adequate for applicators and users who adhere to these instructions. However, deaths and illnesses continue to occur among commercial and farm applicator crews and among children as a result, usually, of a flagrant disregard for reasonable precautions. Therefore, it is felt that the entomological profession has a moral obligation to share with industry the responsibility of rectifying this situation.

The major problem appears to be that the precautionary instructions carried on labels and in brochures do not strike the operating crews with sufficient force for them to be accepted. A number of the outstanding weak spots which exist in our defense against illness or death resulting from improper handling of hazardous chemicals by applicators and users are listed below:

(1) Laborers and even many supervisors or foremen seem to possess a natural urge to resist instructions for the safe handling of hazardous pesticides. The other extreme to this state of lethargy is the development of an acute fear of the chemicals resulting in a refusal to work with them at all.

(2) The protective clothing (gloves, masks, etc.) are uncomfortable and bothersome. Most laborers will refuse to wear them except under compulsion.

(3) Operators may undergo a certain amount of extensive exposure without apparent ill effects. This is "proof" to them that the chemical is not a particularly hazardous one and they subsequently disregard all precautions.

(4) Some individuals who may constitute all or a part of the applicator crew are illiterate. In some areas of the country, there will be members of application crews who do not read or speak English. Of those who are literate, many disregard or are unimpressed by the caution label.

(5) Used containers usually retain a sufficient remnant of the pesticide to constitute a definite hazard to children and animals which may come in close contact with such containers. The manner of disposal of these containers is important in the overall safety program.

This committee has served its function and it is recommended that it be disbanded. Favorable action on the committee recommendations by the Governing Board may or may not require the services of a new committee.

Respectfully submitted,  
J. N. RONEY  
A. L. GUNTER  
J. G. WATTS, *Chairman*

(Governing Board action on the foregoing. Report accepted with approval of general principles advocated but without obligation on the part of the Society to carry out the specific recommendations.)

#### REPORT OF THE SPECIAL COMMITTEE FOR THE REVISION OF THE BROCHURE NUMBER 1

The Committee for the Revision of the Brochure: "OPPORTUNITIES IN PROFESSIONAL ENTOMOLOGY" recommends that:

1. Society Brochure No. 1 ("OPPORTUNITIES IN PROFESSIONAL ENTOMOLOGY") be replaced, when the present edition is exhausted, by the following publications:

a. A shorter, simpler brochure directed primarily toward prospective entomologists of high school age.

b. A revised brochure, including many desirable features of the original publication, directed toward attracting college students to the professional opportunities in Entomology. (Preliminary drafts of these brochures will be presented at the Memphis meetings).

2. The Society adopt a policy of continuously publicizing the career opportunities of professional Entomology (possibly as one of the duties of a *Publicity Committee*) through such activities as the following:

a. Circulation of information (such as mimeographed publicity kits, visual aids, timely news items and outstanding publications from non-society sources) to key persons in educational institutions and other agencies in contact with prospective entomologists.

b. Providing timely and pertinent information for press releases, feature articles, etc.

c. Periodic revision and improvement of the "opportunities" brochures recommended above.

3. The Society invite and encourage educational institutions, governmental agencies and interested business organizations to also prepare and distribute appropriate publications on career opportunities in various phases of professional entomology.

4. This committee be dissolved as soon as its present assignment (Revision of Brochure) is completed to the satisfaction of the officers of the Society.

#### Explanatory Comments:

The brochure "CAREER OPPORTUNITIES IN PROFESSIONAL ENTOMOLOGY" has served a most useful purpose. There appears, however, to be a recognized need for a shorter, well-illustrated publication of greater appeal to young persons of high school age. This new publication should introduce its readers to the fascinations of the

insect world, the importance of insects in human affairs and the opportunities and rewards of a professional career in Entomology.

There remains a need for a second brochure, directed toward a more mature audience, describing the professional opportunities in the various branches of Entomology and emphasizing the kinds of preparation required for each. This attractively printed and illustrated brochure should be particularly directly toward college and university students who are in the process of choosing their fields of career specialization. Surveys have shown that an appreciable number of outstanding students may be expected to choose their professions late in their undergraduate careers, particularly in fields such as Entomology, where a preparatory background in fundamental sciences (and humanities) and a period of graduate study are becoming increasingly essential. Our future entomologists are likely to be found both in colleges of agriculture and in colleges of arts and sciences. The proposed brochure should be written to attract the interest of the superior students in both types of institutions.

Both brochures should have the benefit of the best professional advice relative to typography, illustrations and general layout. They should be made available at prices sufficient to repay their cost to the Society within a reasonable time.

The Society has a continuing obligation to inform young prospective entomologists of the opportunities of the profession, through brochures and by various other means. This should be a recognized function of one or more of the Society Committees dealing with publications and publicity.

Respectfully submitted,  
R. W. EVERY  
C. F. STILES  
L. A. CARRUTH, *Chairman*

(Governing Board action on the foregoing Report accepted. Executive Secretary or someone designated in his place to follow through when present edition is exhausted).

#### REPORT OF THE COMMITTEE ON SUSTAINING ASSOCIATES

The Special Committee on Sustaining Associates (which is comprised of the five chairmen of the Branch committees) recommends that:

1. A candidate for sustaining associate membership should be solicited only by the Branch committee in which its head office or headquarters is situated.
2. The benefits to sustaining associate members of the Entomological Society of America should be expanded or enlarged as an added incentive to membership and to create a broader interest in our Society by prospective associates. (The example of the American Society of Agronomy might be profitably followed.)

This committee has had no meetings and has had no direct contact with the Board Committee on this subject. It would be exceedingly helpful if the latter committee could supply a national list of candidates, organizations, or companies to be distributed among the Branches for solicitation by Branch committees.

It would also be helpful to have suggestions from the Board Committee as to form letters and other suggested approach techniques.

As long as prospective sustaining associates are being solicited by the Branches of the Society, it is believed that coordination of this activity is both desirable and necessary to avoid duplicity in approach, particularly to companies which operate in more than one Branch's territory. It is, therefore, recommended that this committee be continued but that the chairmanship be rotated.

Respectfully submitted,  
C. C. CASSILL  
LEO G. K. IVERSON  
LOUIS C. KUITERT  
E. W. LAAKE  
W. E. McCauley, *Chairman*

#### REPORT OF THE COMMITTEE ON SOCIETY MEMBERSHIP INSIGNIA

##### *Recommendations*

1. A membership card, denoting the payment of annual dues by active members, or clearly marked for other categories of membership, such as honorary, life, student, etc., be adopted by the Society. A membership card would eliminate a receipt for dues and denote members in good standing. The proposed card and its makeup have been cleared with the Executive Secretary and meet with his approval. Only one copy of each exhibit is available and is attached to the original copy of the committee report. The committee further recommends this card be put into use at the earliest possible date in 1958.
2. Further careful study is desirable before submitting recommendations for an emblem (insignia) or lapel pin to designate membership in the society and a committee should continue this study.
  - a. When accepted and approved there shall be only one insignia to designate membership in the society, regardless of the members' academic background or training, including student members.
  - b. There shall not be a separate insignia to designate members who are entomologists.
  - c. That the same approved insignia, gold plated, mounted with a chip diamond, and bearing the letters "PP" to denote Past President be presented each year at an appropriate time, to the past president in lieu of any form of certificate, and that the presentations be made retroactive to include all past presidents since consolidation of the two organizations in 1953.
  - d. That the same approved insignia, silver plated, bearing the letter "HM" to denote "Honorary Member", be made available for honorary members. Any policy involving the presentation of such pins, at no cost to the recipient, be determined by the Governing Board.
  - e. When a suitable insignia is designed and accepted by the society, it should be reserved for sale by the society at a profit but at a reasonable cost to members, the income from such sales to be used to defray the cost of pins presented to past presidents. The only exception, if approved by the Governing Board, would be to permit the sale of pins at cost to student members.

Your committee discussed many facets of the problem connected with the selection of a suitable insignia (to be placed on a lapel pin or button) to denote membership in the ESA and interviewed members not on the committee. Any final recommendations should come only after a more detailed study than was possible this year. Conflicting opinions make it imperative to consider the problem carefully to make certain that such an insignia is in keeping with the stature of the organization.

There is not complete agreement on a proposal to use the present seal of the society on a lapel insignia. Some members feel that the present seal is not representative of the society, a few being of the opinion that the seal should be changed to visually reflect an entomological society by using a carefully selected recognizable insect design for the centerpiece. If a design separate from the seal is proposed, using an insect as the centerpiece, there is wide divergence of opinion regarding the species that should be used.

Because of the many unresolved opinions, the committee did not reach a final conclusion that might be presented in the form of a unanimous recommendation and is in accord with the belief that further study is necessary.

Respectfully submitted,  
ROBERT A. FULTON  
LEV F. CURL  
LOUIS G. DAVIS, *Chairman*

(Governing Board action on the foregoing Recommendation 1. Finance Committee to determine cost for future action. 2. Committee to be continued to make further study.)



## REPORT OF THE COMMITTEE ON LOSSES CAUSED BY INSECTS

1. The committee recommends that it be reconstituted with the same membership for the coming year.
2. That the membership of the Governing Board bring to the attention of the committee chairman any suggestions or concrete proposals that might conceivably aid in achieving the objectives of the committee.
3. That the members of the Governing Board bring to the attention of the committee members residing in their Branch areas the names of any workers that may have knowledge or who have specific data relating to losses caused by insects, and who might be in position to gather such data through further researches or through compilation from studies previously made.

The committee was not formally constituted until late in the summer and the Chairman has not heard from some of the appointees to date as to their acceptance and willingness to work on the committee.

Respectfully submitted,

W. G. EDEN  
J. C. GAINES  
W. E. McCAULEY  
LEO G. K. IVERSON  
J. E. SWIFT  
H. M. HARRIS, *Chairman*

## REPORT ON THE FOURTH INTERNATIONAL CONGRESS OF CROP PROTECTION

Hamburg, Germany, September 9-15, 1957

The Congress rather impressively emphasized the worldwide importance of the problem of crop protection, and the need for cooperation among pertinent scientific disciplines in producing the necessary foods and fibers for our world population. There were almost 2000 people in attendance, and 75 countries or provinces were represented. The presentations were grouped into 20 different sections with the following titles: general plant protection, microbial and non-parasitic plant diseases, warning services and forecasts, viruses and virus diseases, weeds, plant-parasitic nematodes, mites, noxious insects of plants, biocoenoses, biological control, physical properties of pesticides, analytical-chemical methods for investigation of pesticides, insecticides, rodenticides, fungicides, antibiotics, toxicology and hygiene, honey bees and crop protection, protection of stored products, and technique of crop protection. Over 400 papers were presented; these appeared to be well received and many of them stimulated subsequent discussions. The program was unusually well-planned and executed, although slight inconveniences did arise from the sessions being held at several different locations. However, the size of the group made it impossible to have all of the sessions in one meeting place.

The estimated numbers of American scientists in attendance at the Congress are: 25 or 30 from the U.S.A., about 10 from Canada, and several from South America. At least 12 entomologists were there from the U.S.A., seven of whom presented papers.

During the opening session of the Congress, the Otto Appel-Medal was appropriately presented to Dr. E. C. Stakman of the University of Minnesota.

Following is a copy of three resolutions that were read at the final business meeting. No matters arose during the course of the Congress that required action by official delegates. The hope was expressed by some Europeans that perhaps the next Congress, which is scheduled for 1961, could be held in the U.S.A.

Respectfully submitted,

JAMES MCD. GRAYSON  
JOHN H. LILLY  
*Official Delegates of the E.S.A.*

## Resolutions of the 4th International Congress of Crop Protection, Hamburg, 1957

The continually increasing populations of every country in the world call for a corresponding increase in food production. The control, by methods, of the plant diseases and pests which yearly take heavy toll of agricultural crops, leads to higher production. Pests and diseases take no notice of frontiers, and modern transport methods, coupled with the increasing growth of international trade, help to spread them. It is for this reason that the closest international collaboration is vitally important in the field of plant protection.

The delegates to the 4th International Congress of Crop Protection, meeting in Hamburg, deem it their duty to draw attention to this matter and to declare that it is in the interests of all that research in the field of plant protection should be intensified, and that competent national services should be everywhere established.

Further, there is need for still more active collaboration between countries than exists at the present time.

For these reasons, the following resolutions have been passed:

### I

The delegates to the 4th International Congress of Crop Protection recognize the essential soundness of the objectives of the International Plant Protection Convention established in 1951. They regard as of special importance the establishment of national plant protection services, to keep careful look-out for the appearance of pests or diseases in the crops. Countries which export agricultural produce must endeavor, by applying intensive control measures and by the careful inspection of produce for export, to prevent any further spread of pests or diseases. Phytosanitary regulations, which tend to restrict the importance of foods and foodstuffs, must always be based on scientific facts, and should not be used as an excuse for imposing restrictions from political or commercial motives. Governments are urged to give the closest attention to the framing of appropriate and justifiable phytosanitary regulations.

### II

The delegates to the 4th International Congress of Crop Protection unanimously declare that the protection of plants and plant products is indispensable for assuring adequate food supplies for the peoples of the world. One of the most effective and economical methods is the use of chemical products. It is, however, recognized that effective steps must be taken to prevent any injurious effects on health which might conceivably arise from the use of such chemicals. This danger particularly has to be encountered in the case of pesticidal residues which might be injurious to human or animal health, or adversely disturb biological equilibrium. To this end the methods of use of such products must be strictly defined, as well as the permitted tolerances, which must be adapted to the conditions prevailing in each country. Governments are urged to encourage by every means investigations designed to enable effective measure to be established in regard to the chemical treatment of crops.

### III

The delegates to the 4th International Congress of Crop Protection consider that in the plant protection field increased attention should be paid to greater emphasis on basic ecological and physiological research in respect of all measures of plant protection, and to biological control, including the breeding of varieties resistant to diseases and pests and to the combination of biological with chemical control methods. It is considered that the following steps should be taken:

1. Encouragement of fundamental long-term research into the possibilities of the natural defense of the biocoenose against a too-great multiplication of harmful species, and into the influence of chemical treatments on useful as well as on harmful animals, also

taking account of the ecological conditions, in cases where chemical control measures are indispensable.

2. Extension of the possibilities of work for specialists working in the field of the systematic classification of useful insects (entomophages).

3. Encouragement of international collaboration in the field of biological control, especially with regard to the intercontinental exchange of useful organisms and resistant material of cultivated and related wild plants and the creation of national services to arrange and control such exchanges.

# REPORT OF THE INTERNATIONAL PEST CONTROL CONGRESS AND PROPOSED INTERNATIONAL ASSOCIATION OF PEST CONTROL OPERATORS (OR ENTOMOLOGISTS)

The first International Congress of Pest Control Operators, sponsored by the German Pest Control Association, was held in Helmstedt, Germany, May 11-12, 1956. Walter O. Blank, headed the American delegation of eleven persons representing seven firms. A complete account of the Congress was written by Maurice Oser and published in the September, 1956 issue of *Pest Control* magazine.

Pest Control Operators were in attendance from West and East Germany, Switzerland, Austria, United States, Finland, Denmark, Sweden, Norway, Belgium and Holland.

It was decided to hold a second Congress in Vienna, Austria, May 14-18, 1958 with Dr. Franz Weiler as President. The Austrian and German members have prepared a Constitution and By-Laws for a proposed International Association for Pest Control, which will be acted upon at the Vienna meeting. The proposed by-laws include all persons engaged in the control of insects, since most European commercial Pest Control Operators engage not only in structural pest control as do most operators in America, but also in all fields of pest control.

A point of interest in the schedule of yearly dues. Membership is by country, and not by individuals. They have arbitrarily established a "tariff" which is set according to activity in the field of Pest Control as follows:

Category A	.....	\$400.00
Category B	.....	\$300.00
Category C	.....	\$200.00

We presume this would mean the United States would be called upon to pay \$400.

Since the National Pest Control Association, and the Entomological Society of America would be interested in the International Association I assume they would be responsible jointly for the payment of the dues if they decide to join the International Association.

There is evidence from inquiries received that quite a few entomologists and Pest Control Operators will attend the Vienna meeting, and plans are now being made to provide a guided tour before and after the Congress.

The National Pest Control Association will give consideration to their participation at their Convention in Louisville, Kentucky, October 20-24, 1957. I am planning to attend the Memphis meeting of the E.S.A., and will attend the meeting of the Governing Board, as requested by President Armitage to report further, and attempt to answer questions. It is hoped that other members of the Committee appointed by President Armitage, Walter Blank and Maurice Oser will also be present to explain the problem.

Respectfully submitted,  
MAURICE OSER  
J. J. DAVIS

## DEDICATION OF W. O. BUETTNER MEMORIAL BUILDING

On May 9, 1957, the William O. Buettner Memorial Building at 250 West Jersey Street, Elizabeth, New Jersey,

was dedicated as the headquarters of the National Pest Control Association. Fittingly on the anniversary of Bill's birth, the dedication was "to the Memory and Tradition" of Bill Buettner.

Few people in the acquaintances of a lifetime will ever equal the wholehearted friendliness and dynamic accomplishments of Bill Buettner. Out of a sincere desire to pay tribute to the living memory of a true friend and associate, more than two hundred friends from all parts of the country gathered for the dedication. The program included the presentation of the theme by J. Edwin Sameth, past president of NPCA. A welcome was extended by Senator Robert C. Crane of the New Jersey Senate and by Dr. Lewis Webster Jones, President of Rutgers University. Mr. George R. Elliott, past president of the National Pest Control Association, delivered the dedicatory address. This was followed by the unveiling of the memorial plaque by Mrs. William O. Buettner. Mr. Myron W. Smith, the president of NPCA, spoke on the challenge and responsibility of the future of the Association.

A number of entomologists from the Entomological Society of America, representing their own organizations, were present. Among them was one of Bill's closest friends and a past president of the AAEE, Professor, J. J. Davis of Purdue. Another past president of the AAEE, Dr. E. F. Knipling of the ARS, USDA, Entomology Research Branch, as well as the writer, participated in the ceremonies.

All good wishes of the Entomological Society of America go forth to the National Pest Control Association in their new national headquarters, The William O. Buettner Memorial Building.

Respectfully submitted,

CHARLES E. PALM  
E.S.A. Representative

## REPORT OF REPRESENTATIVES

NINTH PACIFIC SCIENCE CONGRESS, BANGKOK, THAILAND, NOVEMBER 18, DECEMBER 9, 1957.

The Representatives of the Entomological Society of America appointed by President Armitage report as follows regarding the Ninth Pacific Science Congress of the Pacific Science Association.

The following active members of the Entomological Society of America were in attendance:

J. A. Munro	Paul Surany
S. Kuwayama	Robert Traub
W. W. Cantelo	E. B. Thurman
J. L. Gressitt	C. H. Hoffmann
C. E. Pemberton	E. A. Steinhaus
R. L. Usinger	L. E. Rozeboom

S. S. Easter

Several former members also attended.

A number of entomologists indicated a desire to become members of the Entomological Society of America but were still experiencing difficulties in getting the necessary dollars to pay the membership dues.

It was encouraging to see the interest, attention and discussion in the entomological as well as the combined sections with reference to the economic control of various important insects of growing crops and agricultural products.

The organizing committee is to be congratulated on the well rounded entomological program considering basic taxonomic and survey work as well as specific control measures employing all the means at the disposal of modern entomologists.

Respectfully submitted,

C. H. HOFFMANN  
E. A. STEINHAUS  
L. E. ROZEBOOM  
S. S. EASTER, Chairman

## REPORT OF REPRESENTATIVE

The undersigned served as representative of the Entomological Society of America at the inauguration of W. C. Friday as President of the Consolidated University of North Carolina at Raleigh, North Carolina.

The ceremony was very impressive, and I deemed it a

distinct honor to represent the Entomological Society of America on this occasion.

This appointment has served its purpose and should be discontinued.

Respectfully submitted,  
CLYDE F. SMITH

## ENTOMOLOGICAL SOCIETY OF AMERICA

### OFFICERS FOR 1958

*President*..... R. L. Metcalf, Riverside, California  
*President-Elect*..... Paul W. Oman, Beltsville, Maryland  
*Executive Secretary*..... R. H. Nelson, 1530 P Street, N.W.,  
Washington 5, D. C.

### GOVERNING BOARD\*

R. L. Metcalf..... Riverside, California (1959)  
H. M. Armitage..... Sacramento, California (1958)  
J. E. Bussart..... Chicago, Illinois (North Central, 1960)  
C. P. Clausen..... Riverside, California (C, 1958)  
F. W. Fletcher..... Midland, Michigan (F, 1958)  
M. P. Jones..... Washington, D. C. (E, 1959)  
K. L. Knight..... Washington, D. C. (D, 1959)  
E. G. Linsley..... Berkeley, California (A, 1960)  
E. H. Littooy..... Sausalito, California (Pacific, 1959)  
C. M. Meadows..... Waco, Texas (Southwestern, 1961)  
R. H. Nelson..... Washington, D. C. (non-voting)  
P. W. Oman..... Beltsville, Maryland (1960)  
B. B. Pepper..... New Brunswick, New Jersey (Eastern, 1958)  
Morris Rockstein..... New York, New York (B, 1960)  
O. I. Snapp..... Fort Valley Georgia (Cotton States, 1959)

### BRANCH OFFICERS

#### Branch Chairmen

Laurence S. Jones..... Riverside, California (Pacific Branch)  
C. G. Lincoln..... Fayetteville, Arkansas  
(Cotton States Branch)  
Neely Turner..... New Haven, Connecticut (Eastern Branch)  
D. A. Wilbur..... Manhattan, Kansas (North Central Branch)  
Paul Gregg..... College Station, Texas (Southwestern Branch)

#### Branch Chairmen—Elect

Leslie M. Smith..... Davis, California (Pacific Branch)  
F. E. Guyton..... Auburn, Alabama (Cotton States Branch)  
R. I. Sailer..... Beltsville, Maryland (Eastern Branch)  
R. E. Hill..... Lincoln, Nebraska (North Central Branch)  
M. A. Price..... College Station, Texas (Southwestern Branch)

#### Branch Secretaries

H. H. Keifer..... Sacramento, California (Pacific Branch)  
M. E. Merkl..... Leland, Mississippi (Cotton States Branch)  
Byrley F. Driggers..... New Brunswick, New Jersey  
(Eastern Branch)  
C. W. Wingo..... Columbia, Missouri (North Central Branch)  
H. E. Meadows..... Houston, Texas (Southwestern Branch)

## EDITORIAL BOARDS—1958

### ANNALS OF THE ENTOMOLOGICAL SOCIETY OF AMERICA

J. J. Pratt, Jr., Wayland, Massachusetts..... (B, 1962)  
J. A. Adams, Poughkeepsie, New York..... (C, 1961)  
L. E. Rozeboom, Baltimore, Maryland..... (D, 1960)  
M. H. Hatch, Seattle, Washington..... (A, 1959)  
R. I. Sailer, *Chairman*, Beltsville, Maryland..... (A, 1958)

### JOURNAL OF ECONOMIC ENTOMOLOGY

G. J. Haeussler, Beltsville, Maryland..... (C, 1962)  
D. E. Howell, Stillwater, Oklahoma..... (D, 1961)  
R. L. Metcalf, Riverside, California..... (B, 1960)  
E. L. Chambers, Madison, Wisconsin..... (E, 1959)  
F. S. Arant, *Chairman*, Auburn, Alabama..... (F, 1958)

\*Section or Branch represented and year term expires shown in parentheses.

### THOMAS SAY FOUNDATION

Herbert T. Dalmat, Bethesda, Maryland..... (D, 1962)  
L. E. Chadwick, Urbana, Illinois..... (B, 1961)  
H. O. Deay, Lafayette, Indiana..... (C, 1960)  
C. W. Sabrosky, Washington, D. C..... (A, 1959)  
Louise M. Russell, *Chairman*, Washington, D. C..... (A, 1958)

### ENTOMA

Roger W. Roth, Old Greenwich, Connecticut... (F, 1962)  
W. C. McDuffie, Beltsville, Maryland..... (D, 1961)  
J. W. Apple, Madison, Wisconsin..... (F, 1960)  
M. P. Jones, Washington, D. C..... (E, 1959)  
J. B. Steinweden, *Chairman*,  
Los Angeles, California..... (E, 1958)

## STANDING COMMITTEES

### Committee on Insect Surveys

J. N. Roney, Phoenix, Arizona..... (1961)  
R. L. Furniss, Portland, Oregon..... (1961)  
N. O. Berry, Sacramento, California..... (1960)  
L. D. Newson, Baton Rouge, Louisiana..... (1960)  
C. A. Bower, Oklahoma City, Oklahoma..... (1959)  
K. D. Quarterman, Savannah, Georgia..... (1959)  
D. W. Hamilton, Vincennes, Indiana..... (1958)  
W. E. McCauley, *Chairman*, Scarsdale, New York. (1958)  
Kelvin Doiward, *Ex Officio*, Vienna, Virginia.....  
P. W. Oman, *Ex Officio*, Beltsville, Maryland.....

### Program Committee

E. H. Smith, Geneva, New York..... (1959)  
E. N. Woodbury, Wilmington, Delaware..... (1958)  
L. D. Anderson, *Chairman*, Riverside, California.. (1960)

### Committee on Insecticide Terminology

Stanley A. Hall, Beltsville, Maryland..... (1960)  
B. N. Smallman, Ottawa, Canada..... (1960)  
Thomas G. Bowers, Raleigh, North Carolina..... (1959)  
Wm. M. Hoskins, Berkeley, California..... (1959)  
Paul A. Dahm, Ames, Iowa..... (1958)  
C. N. Smith, *Chairman*, Orlando, Florida..... (1958)

### Committee on Insecticide Reference Standards

L. H. Dawsey, Tifton, Georgia..... (1961)  
J. E. Casida, Madison, Wisconsin..... (1960)  
G. F. Ludvik, St. Louis, Missouri..... (1959)  
F. W. Fisk, *Chairman*, Columbus, Ohio..... (1958)

### Committee on Common Names of Insects

L. C. Kuitert, Gainesville, Florida..... (1960)  
J. L. Laffoon, Ames, Iowa..... (1960)  
L. O. Warren, Fayetteville, Arkansas..... (1960)  
F. P. Keen, Berkeley, California..... (1959)  
A. V. Mitchener, Winnipeg, Canada..... (1959)  
R. I. Sailer, Beltsville, Maryland..... (1959)  
R. H. Painter, Manhattan, Kansas..... (1958)  
R. F. Smith, Berkeley, California..... (1958)  
H. H. Schwardt, *Chairman*, Ithaca, New York.... (1958)

### Committee on Membership

H. O. Lund, Athens, Georgia..... (1960)  
Roy W. Rings, Wooster, Ohio..... (1960)  
L. A. Carruth, Tucson, Arizona..... (1959)  
W. G. Eden, Auburn, Alabama..... (1959)  
P. A. Glick, Brownsville, Texas..... (1958)  
D. L. Collins, *Chairman*, Albany, New York..... (1958)



#### Committee on Entomological Nomenclature

- D. E. Hardy, Honolulu, Hawaii..... (1960)  
 R. M. Bohart, Davis, California..... (1960)  
 M. H. Hatch, Seattle, Washington..... (1960)  
 J. L. Laffoon, Ames, Iowa..... (1959)  
 H. K. Townes, Ann Arbor, Michigan..... (1959)  
 J. A. Slater, Storrs, Connecticut..... (1959)  
 C. W. Sabrosky, Washington, D. C..... (1958)  
 G. S. Walley, Ottawa, Canada..... (1958)  
 R. L. Usinger, Chairman, Berkeley, California..... (1958)

#### Committee on Finance

- S. E. Jones, West Hyattsville, Maryland..... (1960)  
 J. E. Bussart, Wheaton, Illinois..... (1959)  
 J. W. Apple, Chairman, Madison, Wisconsin..... (1958)

#### Committee on Professional Training, Standards and Status

- J. T. Creighton, Gainesville, Florida..... (1960)  
 S. B. Freeborn, Davis, California..... (1960)  
 C. E. Palm, Ithaca, New York..... (1959)  
 E. J. Gerberg, Baltimore, Maryland..... (1958)  
 R. E. Heal, Elizabeth, New Jersey..... (1958)  
 K. L. Knight, Chairman, Washington, D. C..... (1959)

### SOCIETY REPRESENTATIVES

#### Representative to the Joint Committee on Grassland Farming

- B. A. App, Beltsville, Maryland..... (1958)

#### Representative to the National Research Council, Division of Biology and Agriculture

- A. B. Gurney, Washington, D. C..... (June 30, 1959)

#### Representative to the Agricultural Research Institute, Agricultural Board

- H. H. Shepard, Washington, D. C..... (1959)

#### Representative on the American Association for the Advancement of Science Council

- G. H. Bradley, Washington, D. C..... (1958)

### SECTION AND SUB-SECTION OFFICERS, 1958

#### A. GENERAL ENTOMOLOGY

- J. N. Belkin, Chairman, Los Angeles, California  
 J. A. Slater, Vice-Chairman, Storrs, Connecticut  
 J. L. Laffoon, Secretary, Ames, Iowa

##### Sub-Section a, Teaching

- Philip F. Bonhag, Chairman, Berkeley, California  
 J. D. Lattin, Vice-Chairman, Corvallis, Oregon  
 Carl A. Johansen, Secretary, Pullman, Washington

#### B. PHYSIOLOGY AND TOXICOLOGY

- A. S. Perry, Chairman, Savannah, Georgia  
 J. M. Grayson, Vice-Chairman, Blacksburg, Virginia  
 F. W. Fisk, Secretary, Columbus, Ohio

#### C. BIOLOGY

- R. L. Rabb, Chairman, Raleigh, North Carolina  
 Ray F. Smith, Vice-Chairman, Berkeley, California  
 O. A. Hills, Secretary, Phoenix, Arizona

##### Sub-Section a, Biological Control

- H. A. Jaynes, Chairman, Mt. Carmel, Connecticut  
 C. B. Huffaker, Secretary, Albany, California

##### Sub-Section b, Apiculture

- W. C. Rothenbuhler, Chairman, Ames, Iowa  
 M. D. Levin, Secretary, Logan, Utah

##### Sub-Section c, Relations of Insects to Plant Diseases

- R. C. Dickson, Chairman, Riverside, California  
 G. W. Simpson, Vice-Chairman, Orono, Maine  
 Karl Maramorosch, Secretary, New York, New York

##### Sub-Section d, Ecology and Bionomics

- J. T. Medler, Chairman, Madison, Wisconsin  
 G. T. York, Vice-Chairman, Ankeny, Iowa  
 G. G. Gyrisco, Secretary, Ithaca, New York

#### D. MEDICAL AND VETERINARY ENTOMOLOGY

- D. R. Johnson, Chairman, Falls Church, Virginia  
 D. W. Micks, Vice-Chairman, Galveston, Texas  
 Herbert Knutson, Secretary, Manhattan, Kansas

#### E. CONTROL, EXTENSION AND REGULATORY ENTOMOLOGY

- N. O. Berry, Chairman, Sacramento, California  
 R. L. Janes, Vice-Chairman, East Lansing, Michigan  
 R. W. Sherman, Secretary, Washington, D. C.

##### Sub-Section a, Extension

- J. N. Roney, Chairman, Phoenix, Arizona  
 R. W. Every, Vice-Chairman, Corvallis, Oregon  
 T. R. Robb, Secretary, Laramie, Wyoming

##### Sub-Section b, Plant Pest Control and Quarantine

- A. P. Messenger, Chairman, Sacramento, California  
 Kelvin Dorward, Secretary, Washington, D. C.

#### F. CHEMICAL CONTROL INVESTIGATIONS

- Paul A. Dahm, Chairman, Ames, Iowa  
 J. B. Moore, Vice-Chairman, Minneapolis, Minnesota  
 D. W. Davis, Secretary, Logan, Utah

##### Sub-Section b, Industrial and Commercial Entomology

- Myron W. Smith, Chairman Pro-tem, Memphis, Tennessee  
 R. E. Heal, Secretary Pro-tem, Elizabeth, New Jersey

### PROCEEDINGS OF THE THIRTY-SECOND ANNUAL MEETING OF THE COTTON STATES BRANCH, ENTOMOLOGICAL SOCIETY OF AMERICA

Memphis, Tennessee, December 2, 3, 4, 5, 1957

The thirty-second annual meeting of the Cotton States Branch, E.S.A., was held in the Hotel Peabody, Memphis, Tennessee, on December 2, 3, 4, and 5, 1957. The meeting was held in conjunction with the parent association of the Entomological Society of America. One hundred twenty-eight members and guests registered for the four-day meeting. Chairman Norman Allen opened the first of two branch business meetings promptly at 4:30 P.M. on December 2. Chairman Allen appointed the following committees:

**Auditing:** J. T. Conner, W. M. Kulash, W. G. Eden, Chairman.

**Nominating:** F. S. Arant, I. J. Becnel, J. W. Ingram, W. C. Nettles, A. N. Tissot, Chairman.

**Resolutions:** W. W. Stanley, H. B. Green, Oliver I. Snapp, Chairman.

Chairman Allen accepted for the branch a second gavel made and presented by A. N. Tissot. This gavel was made from sections of wood from each of the states in the branch.

Chairman-elect Lincoln then presented the Chairman for his annual address. Chairman Allen presented a paper on "A Method of Interesting Others in Entomology."

Dr. R. L. Metcalf, President of the Entomological

Society of America attended the final business meeting of the Branch and spoke briefly to the group.

Since the branch meeting was held in conjunction with the parent organization no separate program was presented. Fifty-seven papers were presented by members of the Cotton States Branch in the overall program. These papers represented 27 per cent of the total.

Members of the branch were active on the local arrangements committee for the national group. A. G. Bennett was Chairman of the branch group and he coordinated his efforts with the National Committee.

In the business sessions the following business was approved:

1. *Secretary's Report.* The secretary's report showed two communications were sent to the membership during the year. These were notices concerning abstracts of the 31st Annual Meeting and reminding the members of the 32nd Annual Meeting at Memphis.
2. *Report of the Executive Committee:* The following members of the *Executive Committee* met on December 1 and December 5: Charles Lincoln, A. N. Tissot, H. S. Mayeux, Norman Allen, J. K. Reed, O. I. Snapp and M. E. Merkl. Various problems in connection with the meeting were discussed including the time and place of the next annual meeting. The registration fee was set at \$2.00 for this meeting by unanimous vote.
3. *Report of the Auditing Committee.* We have today examined the financial records of M. E. Merkl, Secretary-Treasurer of the Cotton States Branch, E.S.A. We find that the receipts and disbursements are in agreement and have been properly documented. As of this date, the Branch has a balance of \$50.16 in the checking account and \$141.41 in the savings account, or a total of \$191.57.

Respectfully submitted,

J. T. CONNER  
WALTER KULASH  
W. G. EDEN, *Chairman*

4. *Report of the Program Committee.* The duties of the program committee were greatly curtailed by the Branch meeting with the parent Society. Committee members contacted most of the Branch members regarding presentation of a good number of high quality papers. This was undoubtedly reflected in the 25% increase in number of submitted papers at this national meeting. Fifty-seven, or 27% of the submitted papers were by Branch members. Two business sessions and a Corn Earworm Conference breakfast were scheduled by the Committee.

Respectfully submitted,

L. C. MURPHREE  
R. J. KOWAL  
T. R. PRIMMER  
J. W. WILSON  
J. E. ZEIGLER  
VERNON M. KIRK, *Chairman*

5. *Report of the Membership Committee.* The membership committee has attempted to continue the membership campaign as previously initiated. Members have made personal contacts and extended invitations to join the society at meetings and other functions. Several members have attempted to compare the memberships of state societies with the roster of the Cotton States Branch and contact personally or by letter those who were not members of ESA. During the year Dr. William F. Chamberlain, member from South Carolina, left the Branch and was replaced by Mr. R. L. Walker.

The number of Society members, by states, residing in the Branch area follows:

	MEMBERSHIP			Percent of total membership
	As of 3/25/57	As of 11/6/57	Net gain	
Alabama	34	33	-1	6.0
Arkansas	21	20	-1	3.6
Florida	153	157	4	28.9
Georgia	87	85	-2	15.6
Louisiana	61	72	11	13.2
Mississippi	56	52	-4	9.5
N. Carolina	57	60	3	11.0
S. Carolina	33	36	3	6.6
Tennessee	27	28	1	5.1
	529	543	14	

The Branch gained 14 new members during the past eight months and this amounts to an overall gain of 2.64 per cent. It should be noted that Louisiana enjoyed an 18 per cent gain.

The *Membership Committee* wishes to thank the secretaries and others who have made contributions toward solicitations during the year. Thanks are due also to Mr. R. H. Nelson for his assistance in various matters.

Respectfully submitted,

JOHN C. ALDEN, GEORGIA  
GEORGE H. BLAKE, JR., ALABAMA  
FRANK GUTHRIE, N. CAROLINA  
JOHN S. ROUSSELL, LOUISIANA  
A. L. HAMNER, MISSISSIPPI  
R. P. MULLEN, TENNESSEE  
ROBERT L. WALKER, S. CAROLINA  
WILLIAM D. WYLIE, ARKANSAS  
G. D. JONES, NATIONAL COMMITTEE  
L. C. KUITERT, FLORIDA, *Chairman*.

6. *Report of the Representative to the Governing Board, E.S.A.* Your representative has attended and participated in each session of the Governing Board at the Fifth Annual Meeting of the Entomological Society of America at Memphis, Tennessee. The first session started at 1:30 P.M. on Saturday, November 30, and subsequent sessions were held on the night of November 30, and morning, afternoon and night of December 1. Consequently, it was possible to complete a large part of the deliberations, actions and work of the Board before the formal program for the meeting started on December 2. The Board was again in a closed session on the afternoon of December 3 and morning of December 5. At the invitation of the President of the Society, your representative sat in on each session of the Governing Board at the Fourth Annual Meeting of the Society in New York City, December 27-30, 1956. These sessions started on the night of December 26 and they were attended to afford your representative the opportunity to become familiar with the operation of the Society and to become informed of the actions taken before his tenure on the Board started at the final business session of the Society in New York. He officially represented the Branch at the final session of the Board in New York. As the Thirty-Second Annual Meeting of the Cotton States Branch was held in conjunction with the Fifth Annual Meeting of the parent Society, The Entomological Society of America, in Memphis, Tennessee, December 2-5, 1957, at which the President and Executive Secretary of the Society gave a complete coverage of the transactions by the Governing Board, only the more important items as they may affect the Cotton States Branch will be presented here.
  - a. The Entomological Society of America will hold its 1961 meeting in a Southern city, yet to be selected, on November 27-30. Invitations should be sent to the Executive Secretary and your Branch representative.
  - b. The Governing Board recommended an increase

in dues and journal subscription totalling \$3 to employ an editorial staff, join the AIBS and for a miscellaneous publication.

- e. The Cotton States Branch is well represented on standing committees by nominations to fill vacancies on these committees.
- d. The Board directed the Executive Secretary to send out a ballot to the membership of the Society to survey the membership on an increase of one dollar in the Society dues to be returned to the Branches.

Respectfully submitted,

OLIVER I. SNAPP  
Cotton States Branch Representative  
On the Governing Board—1957-1959.

7. *Report of the Public Relations Committee.* Chairman Norman Allen of the Cotton States Branch appointed a *Public Relations Committee* consisting of Messrs. Mayeux, Gordon Barnes, and G. G. Rohwer which presented a report on the activities at the annual meeting at Hotel Peabody on December 5, 1957. A brief summary of the activities of that committee follows:

A sub-committee was appointed consisting of C. R. Jordan, Chairman; K. L. Cockerham, and L. H. Moore to review the Entomological Society's Brochure No. 1 entitled, "Opportunities in Professional Entomology," with the thought of suggesting modifications to the parent society through the Branch.

This sub-committee points out that the brochure contains good information, but is directed at too high a level and recommends that it be reworked with the idea of stimulating an interest in entomology on the part of high school students and college freshmen. Specific recommendations include the use of color, more simple and more colorful language, with larger print, fewer words, and the use of pictures, diagrams, or graphs. It is suggested that such a modified brochure be sent to all high schools, colleges, and libraries. Another sub-committee was appointed to prepare a draft of a talk which might be used as a basis for Cotton States entomologists in presenting discussions before high school groups, 4-H clubs, civic groups, and others to encourage a greater interest in and understanding of entomology. This committee consisted of W. A. Ruffin, Chairman; M. Louis Wright, and J. W. Maxwell who prepared information for consideration by the Branch.

State sub-committees were appointed, consisting of members of Public Relations Committees of state societies, where they are in existence. Suggestions provided by the Branch committees to the state sub-committees for consideration included:

- a. That a list of entomologists and their addresses in each state be given to high school principals, vocational agriculture teachers, 4-H clubs, etc., so that they call on them for discussions.
- b. Review the draft of the proposed Branch talk in order to make it fit local state use.
- c. Review the constitution and by-laws of state societies, where existing, to determine whether they provided for a permanent public relations committee, and, if not, see if such a provision could be made.
- d. Publicize entomological meetings.
- e. Prepare portable exhibits for use in fairs, etc.
- f. Urge the employment of high school graduates for summer entomological employment where practical.
- g. Present a summary of the accomplishments at the annual meeting of the Cotton States Branch.

Some of the outstanding accomplishments by the state sub-committees were the provision for a standing public relations committee by the state societies in Alabama, Florida, Georgia, Mississippi, and South

Carolina. A state entomological society has recently been organized in North Carolina, and one is being considered currently in Arkansas.

Exhibits on entomology were prepared by the state societies in Florida and Georgia. An illustrated slide talk for use of state members was prepared for use by the state societies in Florida and Georgia.

The Entomological Society of Georgia made arrangements for the Governor of the state to proclaim an Insect Control Week. Special assistance was given by the state societies to the 4-H entomology work in Georgia, Louisiana, and Mississippi.

The Cotton States Branch *Public Relations Committee* suggested:

- a. That the recommendations of the brochure sub-committee be forwarded through the Branch to the Entomological Society of America for consideration.
  - b. That future Branch committees continue to work through state committees, and that the latter committees be urged to appoint local groups at strategic points in their states to give greater publicity to entomology. The Branch committee would make suggestions that could be considered by the state committees, and would, in turn, receive suggestions from the state committees that could be passed on to the other states.
  - c. That the Branch arrange to consolidate, mimeograph, and distribute copies of a "talk" which would be used by Branch state entomologists as a basis for giving discussions for high school groups, etc., and that the Branch arrange for one set of slides for each Branch state. It is believed that a set of approximately 20 slides per state, which would cost in the neighborhood of \$54.00 for the 9 Branch states, would be sufficient.
  - d. That the Branch consider ways and means of encouraging colleges to offer courses in entomology during the freshman and sophomore years, and that student jobs in entomology be offered to freshmen and sophomores to encourage more students to enter the study of entomology.
  - e. That the Branch should recommend to the Entomological Society of America that they arrange for a standing *Committee on Public Relations*.
  - f. The Branch, in cooperation with state societies, develop a system for getting broader newspaper and radio coverage.
  - g. That new members of the *Cotton States Branch Public Relations Committee* in the future be appointed at the time of the first annual business meeting in order that the committee may get together before the completion of the annual meeting.
  - h. That entomologists within each state work with extension workers to promote a greater interest in 4-H entomology and assist the extension workers with these groups.
8. *Report on Progress in Purchasing Projection Equipment.* At the thirty-first annual meeting in Birmingham, Alabama, early this year, the Branch passed a motion to purchase necessary projection equipment. Subsequently our chairman, Mr. Norman Allen, assigned me the task of advising the Executive Committee and of assisting in making proper choices and actual purchases. At this moment the status of the project is as follows:

TOTAL OF ORIGINAL FUND AVAILABLE . . . . . \$620.00

*Purchased and on Hand:*

2 ea. Kodaslide 35 mm projectors (Signet, 5 inch, f 2.8 w/carrying cases) . . . . .	148.18
2 ea. Da Lite Challenger Screens (70" x 70") . . . . .	91.71
4 ea. Extension Cords (Complete), 6 locks . . . . .	13.08

*In Process of Construction:*

4 shipping cases (for 35 mm projectors and screens) . . . . .	100.00
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**On Order, Delivery Promised by December 15:**

2 ea. Projector, Heiland-Golde, Air-Flo Stereopton C-61 (1043) for  $3\frac{1}{4}$  x 4 slides, 2-way carrier; A-230 12 inch lens with barrel and C-47 nose piece plus carrying case and 1000 watt lamp  
Total..... 264.29

TOTAL FOR EQUIPMENT RECEIVED AND ON ORDER..... \$617.26

Uncommitted Balance..... \$ 2.74

ESTIMATED MAXIMUM COST OF SHIPPING

CASES FOR  $3\frac{1}{4}$  x 4 PROJECTORS..... 75.00

Needed to Complete Project..... 72.26

It should be pointed out here that the amounts given above for the  $3\frac{1}{4}$  x 4 projectors are subject to change because delivery was delayed while this model was being improved. However, a price change is rather unlikely, I believe, since the order was definitely accepted by the manufacturer at the stated amount. The manufacturer chose to delay delivery until the improvements are made.

It is hereby proposed that all the equipment remain in safe storage in Jacksonville, Florida, until the next meeting of the Branch at which time the equipment will be shipped to the meeting place and turned over to the Secretary-Treasurer, who is charged in the original motion with the responsibility for safekeeping and use of these items.

Respectfully submitted,  
HERMAN S. MAYEUX  
Member, Executive Committee

A motion was made by H. S. Mayeux that the Executive Committee be authorized, at its own discretion, to spend an amount not to exceed \$75.00 (Seventy-five dollars) for the construction of proper shipping cases for the two  $3\frac{1}{4}$  x 4 inch slide projectors now on order, that the residue of the fund already earmarked for this use be supplemented from the General Fund of the Treasury and that funds from any sources available at the committee's discretion be used for this purpose.

The motion was passed by the Branch.

A motion was made and passed that Branch Projection equipment be loaned only by obtaining permission of the executive committee.

A motion was made by H. S. Mayeux that the Cotton States Branch recommend that the Entomological Society of America increase the dues of all its members in the amount of one dollar per member and that the Entomological Society of America make an accrued issue to each branch of an amount of one dollar per paid up member on the branch rolls. The secretary of the Cotton States Branch is instructed to send report of this action to all Branch Secretaries and to the National Secretary. The Cotton States Branch representative to the Governing Board of the Entomological Society of America is instructed to pass this suggestion to the Board and support its passing into effect.

The motion was passed by the Branch.

9. *Report of the Nominating Committee.* The committee recommends that the persons named below be placed in nomination for the office and positions indicated:

Chairman—CHARLES LINCOLN

Chairman-elect—PROF. F. E. GUYTON

Secretary-Treasurer—M. E. MERKL

Members of Executive Committee—DR. CLYDE F. SMITH  
MR. I. J. BECNEL

Respectfully submitted,  
F. S. ARANT  
I. J. BECNEL  
J. W. INGRAM  
W. C. NETTLES  
A. N. TISSOT, Chairman

The report of the committee was accepted and the officers were elected.

**10. Report of the Resolutions Committee.**

*Resolution No. 1.*

*Whereas*, the Cotton States Branch is finding difficulty in financing its operations through its registration fee; and

*Whereas*, the Branch renders services to all its members, the payment of dues would therefore result in all its members supporting the activities of the Branch; and

*Whereas*, those members present at the annual meetings now bear the brunt of financing the Branch; and

*Whereas*, other Branches have reportedly experienced the same problem; and

*Whereas*, the Entomological Society of America has the machinery and authority for collecting dues;

*Be it resolved*, that the Cotton States Branch go on record as favoring:

- The collection of an additional dollar from each member as a part of annual dues; and
- The payment of same dollar to the appropriate Branch as determined by the membership roll of each Branch; and
- That the Cotton States Branch Secretary send a copy of this resolution to the Executive Secretary of the Entomological Society of America and to the Secretary and Chairman of all other Branches.

*Resolution No. 2.*

*Whereas*, the success of our meeting is largely dependent upon the planning of many persons;

*Therefore, be it resolved* that the Cotton States Branch of the Entomological Society of America, in convention at the Peabody Hotel in Memphis, Tennessee, on December 2-5, 1957, express thanks and appreciation to all who have contributed to the success of the meeting, and especially to the following:

- Herman S. Mayeux for the wonderful service that he has rendered by securing projection equipment, screens and other accessories to be used at the annual meetings;
- A. G. Bennett and the local arrangements committees for their efforts which resulted in efficient projection equipment and its use;
- The Exhibits Committee which resulted in an interesting and attractive display of various phases of entomology, and we recommend that such a committee be set up for future meetings;
- The Public Relations Committee which did an outstanding job during the past year and has turned in an excellent report which was accepted by the Executive Committee. The Branch is encouraged to continue the work of this Committee;
- M. E. Merkl for his efficient service as secretary-treasurer;
- Norman Allen for his excellent address and leadership during the year;
- The Memphis Chamber of Commerce for providing the services of Mrs. J. H. O'Donnell, whom we wish to commend for an excellent job at the registration desk and for stenographic services;
- The Peabody Hotel for providing excellent facilities for our meeting.

*Be it further resolved* that the Secretary of the Branch send to the persons mentioned a copy of the resolution affecting them.

W. W. STANLEY  
H. B. GREEN  
OLIVER I. SNAPP, Chairman  
Respectfully submitted,  
M. E. MERKL, Secretary-Treasurer

## ZOOLOGICAL NOMENCLATURE

### Notice of proposed use of the Plenary Powers in certain cases for the avoidance of confusion and the validation of current nomenclatorial practice (A.(n.s.)40)

Notice is hereby given that the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers is involved in applications relating to the under-mentioned names included in Double Part 10/11 of Volume 13 and Part 1 of Volume 16 of the *Bulletin of Zoological Nomenclature* which will be published on 30th December 1957.

(b) Application in Part 1 of Volume 16

- (3) *Calandra* (*Calendra*) Clairville & Schellenberg, 1798, suppression of, in favour of *Sphenophorus* and *Sitophilus*, both of Schoenherr, 1838, respectively, in interests of universality of nomenclature; *abreviatus* Fabricius, 1787 (*Curulio*) and *oryzae*, emendation to, of *oryza* Linnaeus, 1763 (*Curculio*), validation of (Class Insecta, Order Coleoptera) (Z.N. (S.)255).

2. The present Notice is given in pursuance of the decisions taken on the recommendation of the International Commission on Zoological Nomenclature, by the recommendation of the International Commission on Zoological Nomenclature, by the Thirteenth International Congress of Zoology, Paris, July 1948 (see *Bull. Zool. Nomencl.* 4:51-56, 57-59; *ibid.* 5:5-13, 131).

3. Any specialist who may desire to comment on any of the foregoing applications is invited to do so in writing to the Secretary to the International Commission (Address: 28 Park Village East, Regent's Park, London N.W.1, England) as soon as possible. Every such comment should be clearly marked with the Commission's File Number as given in the present Notice, and sent in duplicate.

4. If received in sufficient time before the commencement by the International Commission of voting on the application in question, comments received in response to the present Notice will be published in the *Bulletin of Zoological Nomenclature*, comments received too late to be so published will be brought to the attention of the International Commission at the time of the commencement of voting on the application in question.

5. Under the decision by the International Congress of Zoology specified in paragraph 2 above, the period within which comments on the applications covered by the present Notice are receivable is a period of six calendar months calculated from the date of publication of the relevant Part of the *Bulletin of Zoological Nomenclature*. The Parts now in question will be published on 30th December, 1957. In consequence any comments on the applications published in these Parts should reach the Secretariat of the International Commission at the latest by 30th June 1958.

FRANCIS HEMMING  
Secretary to the International Commission  
on Zoological Nomenclature

December, 1957.

## BISEQUICENTENNIAL

Our old friend "Pete" Simmons supplied us with the following review. We have added a title and hope you enjoy it as the Editor did.

JAMES, W. O. Linnaeus (1707-1778). *Endeavor* (England) 16 (62): 107-112, 1957, illustrated, including a full-page color reproduction of a painting of Linnaeus. Reviewer's note: (*Endeavour*, an attractive quarterly journal devoted to general science, often beautifully illustrated in color, is sent free upon request to Imperial Chemical Industries Limited, Millbank, London, S.W. 1, England.) Christmas in Sweden 250 years ago last December had no appeal for Carl Linnaeus. No doubt the town of Stenbrohult was gay at that time, but Carl couldn't get into the spirit of the holiday season. He was 7 months old.

Carl's father, Nils, lived on the income of a curate and

could not keep his firstborn in college for very long. However, he endowed him with "a nature that inspired such confidence and liking that a succession of wealthy and influential patrons made it possible for Carl to follow wherever his abilities and inclinations should lead."

During Carl's second year at the University at Uppsala the teacher of botany there turned over to him the job of giving the lectures. Attendance soon increased from 80 to 400. Two years later the young man made a trip to Lapland, and after his return published *Flora Lapponica*.

In order to earn a living Carl studied medicine in Holland for 1 week, receiving his degree in June 1735 from the university at Harderwijk. During a stay there of 2½ years he published several of his books. He then made a trip to England to visit botanical gardens, returned to Sweden in 1738, and started practice as a physician in Stockholm. At length he received the title of Royal Physician, and was made Knight of the Polar Star. The first president of the Academy of Science was Linnaeus, or, with the King's favor, von Linne.

Practicing medicine was a living but the work did not please him. He was glad to be appointed professor of medicine and botany in the University at Uppsala. After that he taught, collected, studied plants, developed a fine botanical garden, wrote books, and was able to live in patriarchal style on an estate in the country. His field trips around Uppsala became very popular, often being attended by 200 or 300 people.

Of course, Linnaeus' chief claim to perpetual fame was his great service to biology. "God made the plants and animals, Linnaeus named them," the Swedish people say. (JAEGER, EDMUND C., "A Source-Book of Biological Names and Terms," 3rd Ed., P. 312, 1955).

"All through his life he worked with a fury that may have prematurely broken down his strength." Linnaeus thought it had. His statements of principles "are still the firm foundation of the modern international rules of biological nomenclature, and they, rather than the binomials, are his true memorial."

PEREZ SIMMONS

## MEETINGS

(See also under this heading in the December 1957 BULLETIN)

ST. LOUIS, MISSOURI. Sheraton-Jefferson Hotel. March 26-28, 1958. The thirteenth annual meeting, North Central Branch, Entomological Society of America. Don A. Wilbur, Chairman, Department of Entomology, Kansas State College, Manhattan, Kansas; C. W. Wingo, Secretary-Treasurer, 102 Whitten Hall, Columbia, Missouri.

URBANA, ILLINOIS. May 8-10, 1958. The fifty-first annual meeting of the Illinois State Academy of Science on the campus of the University of Illinois. James S. Ayars, Technical Editor, Illinois Natural History Survey, Urbana, Illinois.

STILLWATER, OKLAHOMA. May 10, 1958. The 1958 annual meeting of the Central States Entomological Society at the Student Union Building, Oklahoma State University. Fred A. Lawson, Secretary-Treasurer, Department of Entomology, Kansas State College, Manhattan, Kansas.

ITHACA, NEW YORK. June 16-July 3, 1958. Cornell University Summer Laboratory Course in the Techniques and Applications of the Electron Microscope. Techniques especially applicable to biology. T. R. Cuykendall, Director, Department of Engineering Physics, Cornell University, Ithaca, New York.

SAN DIEGO, CALIFORNIA. El Cortez Hotel. June 25-27, 1958. The forty-second annual meeting Pacific Branch, Entomological Society of America. Laurence S. Jones, Chairman, P. O. Box 1066, Riverside, California; H. H. Keifer, Secretary-Treasurer, 1112 Swanston Drive, Sacramento 14, Calif.

WASHINGTON, D. C. Statler Hotel, October 20-23, 1958. The 1958 Annual Convention of the National Pest Control Association. Ralph E. Heal, Executive Secretary, Buettner Memorial Building, 250 West Jersey Street, Elizabeth, New Jersey.

## BOOK REVIEWS

**PEST INFESTATION RESEARCH 1956.** The Report of the Pest Infestation Research Board with the Report of the Director of Pest Infestation Research (London), 64 pp., illus. Available from British Information Services, 45 Rockefeller Plaza, New York 20, N. Y. Price \$0.86 postpaid.

This annual report of the entomological research activities carried on with headquarters at Slough, Bucks., England, covers a wide range of projects, too numerous to list here. Thirty papers published by the staff in 1956 are listed on pages 59 and 60. This output was the result of efforts by a staff of 79 scientists, librarians, and technicians. Thirty-four of the 79 were women. Head administrator is the Director, G. V. B. Herford, who is aided by the Assistant Director, Dr. E. A. Parkin. Other leaders are M. E. Solomon, R. W. Howe, W. Burns Brown, F. P. W. Winteringham, T. A. Oxley, and D. W. Hall. This organization directs its attention to stored-product and household insect problems and is the largest organization in one location devoted to that phase of entomology.

PEREZ SIMMONS

**CYNIPID GALLS OF THE PACIFIC SLOPE.** By Lewis H. Weld. Privately printed (Offset). 64 pages, 78 line drawings, 124 half tones. 1957. \$1.00.

I believe every field entomologist who has worked on the Pacific Slope has wished for a publication that would enable him to identify cynipid galls. Mr. Weld's publication comes as close to fulfilling this wish as is possible today for he treats of all the known species of gall makers in this region. But he points out that over one-third of the known oak galls are undescribed and that the makers of many galls are unknown.

The publication is designed for field use and easy identification and is fully cross indexed; it contains a key to subfamilies and to genera of the Cynipoidea, good illustrations of characters used in the keys, a synoptic list of the 191 species of Cynipoidea (including parasites and inquillines) described or recorded from the Pacific Slope, a host index of the gall making species, a table listing the oak gall-makers by part of the plant affected and hosts on which each occurs, notes on collecting and rearing galls, and 171 illustrations, mostly half tones, of galls.

Mr. Weld's book will certainly act as a stimulus and give the study of the group a good push forward. It is a book every entomologist working on the Pacific Slope will want to own.

The work is available from the author 6613 N. Washington Blvd., Arlington 13, Va., or from R. J. Lyon, Los Angeles City College, 855 North Vermont Avenue, Los Angeles 29, Calif.

DONALD DE LEON

**LITERATURE OF AGRICULTURAL RESEARCH,** by J. Richard Blanchard and Harald Ostvold. 1958. University of California Press, Berkeley and Los Angeles. 231 plus X pp. \$5.00

This is the first of a series of bibliographic guides sponsored by the University of California libraries and issued by the University of California Press. In the preface the authors discuss the tremendous growth of the literature of agriculture and its related fields and the extremely complex problem of bibliographical control, particularly of systematizing the superabundance of publications in such a way that facts can be obtained from them when called for. This complexity arises from the inadequacy of bibliographies, indexes, and abstracting services, as well as from the quantity of publications. Such devices appear and disappear, overlap, skip years and whole subject areas, and omit the literature of some entire countries and regions. It should be helpful, therefore, from time to time, to sum up descriptively these guides to information and literature. Such a summation may reveal weaknesses and gaps in the bibliographical machinery and thus provide a stimulus to improvement. The present work is an important step in this direction.

The literature has been arranged by broad subjects under the following sections: agriculture in general, plant sciences, animal sciences, physical sciences, food and nutrition, and social sciences. Under the sub-divisions for sections, reference works are arranged by the following categories: bibliographies of bibliographies and general works, abstracting journals, bibliographies and indexes, encyclopedias, dictionaries, directories, handbooks, yearbooks, history and biography, geography, abbreviations, periodical lists, societies and organizations, tables, and miscellaneous. Not all subjects have reference works in each of these categories, nor is it always clear how a certain work should be classified.

Recent titles, noted at the last minute, are given in an Addendum, Section G. A 57-page index completes the volume which appears to be a very useful compilation for those seeking sources of information dealing with the literature of agricultural research.

F. W. POOS

**METHODS OF TESTING CHEMICALS ON INSECTS—Volume 1.** Harold H. Shepard. The Burgess Publishing Company, Minneapolis, Minnesota. Expected to be ready in April 1958. A review will be published later.

### Contents

- Chapter 1 Surface Phenomena in Relation to Insect Cuticle, by W. M. Hoskins
- 2 Penetration of Insect Cuticle, by A. G. Richards
- 3 Measurement of Insect Respiration, by R. Craig
- 4 Electrophysiological Preparations in the American Cockroach, by K. D. Roeder and Elizabeth A. Weiant
- 5 Study of the Circulatory System in Insects, by R. L. Patton
- 6 Radioactive Tracer Methods, by A. W. Lindquist
- 7 Resistance Studies, by W. V. King
- 8 Methods of Topical Application and Injection, by R. L. Metcalf
- 9 Feeding and Drinking Methods, by F. W. Fisk
- 10 Dipping Methods, by A. H. McIntosh
- 11 Precision Spraying, by C. Potter
- 12 Precision Dusting, by J. E. Dewey
- 13 Testing Fumigants, by R. T. Cotton
- 14 Synergism and Antagonism, by N. Turner

## SHERMAN CLARK HONORED

Sherman W. Clark, manager of the agriculture department of Texas Gulf Sulphur Company, has been appointed chairman of the Houston Chamber of Commerce agriculture committee. The appointment was announced by Chamber President Ben C. Belt on January 31, 1958.

Active in many agricultural activities, Mr. Clark is a director of the Houston Farm and Ranch Club and a member of the advisory committee of the vocational agriculture department, Houston Independent School District. He is associate arena director and livestock committee chairman for the Houston Fat Stock Show.

Mr. Clark served as Secretary-Treasurer of the Southwestern Branch of the Entomological Society of America for three years. He concluded his very successful term in that office at the sixth annual meeting of the Branch in Houston, Texas, February 10-11, 1958. He has the congratulations of all members of the Society.



## BOOK ANNOUNCEMENT

### IDENTIFICATION OF INSECT CONTAMINATION OF FOODS BY THE MICROMORPHOLOGY OF INSECT FRAGMENTS

The Bureau of Biological and Physical Sciences, Food and Drug Administration, Department of Health, Education & Welfare, Washington 25, D. C., has begun preparation of an authoritative and comprehensive volume on insects and insect fragments which cause the adulteration of foods and drugs.

The material for the book is being prepared and assembled by a team of workers of the Division of Microbiology who are recognized as leading experts in this field.

This book will be the only volume which lays the foundation for the identification of insect fragments and their interpretation as contaminants. It will include:

A comprehensive survey of insects—field, plant, and storage—which infest food products, with a discussion of routes of adulteration and the significance of various contaminants;  
Life cycles and habits, morphology of the whole insects, and patterns of fragmentation;  
Descriptions and illustrations in micromorphological detail of fragments encountered in adulterated foods and drugs;  
Differential characteristics, with profuse photomicrographs and drawings for identification of insect contaminants by their fragments.

The scope and detail of information presented will be indispensable to the analyst in control, research, and agriculture laboratories; to plant sanitarians and control officials; to technical, legal, and consumer consultants; and will serve as an invaluable reference for those in industry and government working in the field of food and drug contamination.

The cost of such a volume will depend upon the number of books initially published. Interested parties should write the Bureau at the address given above to assist them in determining potential demand for the book.

### INSECTS OF MICRONESIA

#### *Interim Notice*

Jan. 1, 1958

Publications of the INSECTS OF MICRONESIA series are issued at irregular intervals by Bishop Museum. There are to be 20 volumes. Volume 1 is an introduction; volume 2 a bibliography; volumes 3 to 19, by various authors, cover the systematic treatment. Volume numbers follow an approximate systematic arrangement of the insects and other terrestrial arthropods. But within each volume the articles are published as received, regardless of systematic order. Most of these volumes will consist of 5 to 12 issues.

Volumes 1 and 2 were each complete in a single issue. None of the other volumes has been completed, but by 1959 two or three volumes should be finished.

When a volume is finished, a title page, contents and index will be distributed with the last part.

The following issues have appeared to this date.

- Vol. 1
- Vol. 2
- Vol. 3, nos. 1 through 3
- Vol. 4, no. 1
- Vol. 6, nos. 1 through 4
- Vol. 7, nos. 1 through 3
- Vol. 8, no. 1
- Vol. 12, nos. 1 and 2
- Vol. 13, no. 1
- Vol. 14, nos. 1 and 2
- Vol. 16, no. 1
- Vol. 17, nos. 1 through 3
- Vol. 19, no. 1

The price for the above is \$31.75.

## INTERNATIONAL CONGRESS OF RADIATION RESEARCH

AUGUST 10-16, 1958

An International Congress of Radiation Research will be held at The University of Vermont, Burlington, Vermont, August 10-16, 1958, under the joint sponsorship of the National Academy of Sciences-National Research Council and the Radiation Research Society in cooperation with the European Committee on Radiobiology.

The International Congress is being organized in order to provide an international forum for an interdisciplinary attack on the broad area of radiation research. Under the chairmanship of the Congress president, Dr. Alexander Hollaender of Oak Ridge National Laboratory, the organizing committee has scheduled the following symposia:

August 12—Role of Oxygen and Peroxides in Radiation Chemistry:  
Analysis and Correlation of Various Radiobiological Actions on the Same Cell Species (Yeast).

August 13—Free Radicals Produced by Irradiation.

August 14—Late Effects of Irradiation in Mammals.

August 15—Induced Changes in DNA and in Chromosome Structure.

In addition, plenary sessions have been planned on the progress and status of radiation research, and ample opportunity will be given those who wish to present contributed papers in the broad area of radiation research.

Information concerning the presentation of papers, registration and housing may be obtained from Dr. Harvey M. Patt, Secretary General, International Congress of Radiation Research, Argonne National Laboratory, Post Office Box 299, Lemont, Illinois U.S.A.

## NECROLOGY

DAVIS, JOSEPH M. 48. Forest entomologist. In Doctor's Hospital, Washington, D. C., December 30, 1957.

ROSS, ALAN J. 59. Pest Control Operator. At his home in Springfield, Massachusetts, September 20, 1957.

SCHAFFNER, JOHN F., JR. 69. Forest entomologist. At his home in Rochester, Vermont, November 26, 1957.

## AUTOGRAPHA OO

(Continued from inside front cover)

MEETING DATES. The December 1957 issue of the BULLETIN contains a long list of meeting dates for 1958. In this and succeeding issues this year, we will repeat pertinent notices and add others. The December list should be kept at hand for ready reference.

OFFICERS. Society, Branch, and Section officers and Standing Committee members for 1958 will be found in this issue. These people are contributing their time and effort to the advancement of the Society and we salute them. As Branch officers change during the year, we will note this in future issues.

IDES OF MARCH. The ancient ills of this date have nothing to do with this issue of the BULLETIN—we assure ourselves! Even income tax day is a month away. If, as you itemize your deductions, you find that an increase in your contribution total would have been to your liking you might consider including your professional Society. We are incorporated as a non-profit scientific organization. A number of members do make annual contributions. These are held as part of a savings account which we hope will develop into an endowment fund (now being considered by the Finance Committee) the proceeds some day to go toward maintenance of an adequate Society office.

While the above is written in a light vein, we are completely serious and invite correspondence. Consult your lawyer regarding contributions of stock in American and Canadian firms.

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